

SEC  
Mail Processing  
Section  
MAR 2 0 2019  
Washington DC  
415

File No. PCAOB 2019-02  
Consists of 1692 Pages

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

---

Form 19b-4

Proposed Rules

By

Public Company Accounting Oversight Board

In accordance with Rule 19b-4 under the  
Securities Exchange Act of 1934

1. Text of the Proposed Rules

(a) Pursuant to the provisions of Section 107(b) of the Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley" or the "Act"), the Public Company Accounting Oversight Board (the "Board" or the "PCAOB") is filing with the Securities and Exchange Commission ("SEC" or "Commission") a proposed new rule and amendments to auditing standards (collectively, the "proposed rules"), under which three existing standards will be replaced with a single, updated standard, AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*. The proposed rules are attached as Exhibit A to this filing. In addition, the Board is also requesting the SEC's approval, pursuant to Section 103(a)(3)(c) of the Act, of the application of the proposed rules to audits of emerging growth companies ("EGCs"), as that term is defined in Section 3(a)(80) of the Securities Exchange Act of 1934. Section 104 of the Jumpstart Our Business Startups Act provides that any additional rules adopted by the Board subsequent to April 5, 2012 do not apply to the audits of EGCs unless the SEC "determines that the application of such additional requirements is necessary or appropriate in the public interest, after considering the protection of investors, and whether the action will promote efficiency, competition, and capital formation." *See* Exhibit 3.

(b) Not applicable.

(c) Not applicable.

2. Procedures of the Board

(a) The Board approved the proposed rules, and authorized them for filing with the SEC, at its open meeting on December 20, 2018. No other action by the Board is necessary for the filing of the proposed rules.



(b) Questions regarding this rule filing may be directed to Barbara Vanich, Deputy Chief Auditor (202/207-9363, [vanichb@pcaobus.org](mailto:vanichb@pcaobus.org)); Keith Wilson, Deputy Chief Auditor (202/207-9134, [wilsonk@pcaobus.org](mailto:wilsonk@pcaobus.org)); Dominika Taraszkiewicz, Associate Chief Auditor (202/591-4143, [taraszkiewicz@pcaobus.org](mailto:taraszkiewicz@pcaobus.org)); Karen Wiedemann, Associate Counsel (202/591-4411, [wiedemannk@pcaobus.org](mailto:wiedemannk@pcaobus.org)); Nike Adesoye, Assistant Chief Auditor (202/591-4177, [adesoyen@pcaobus.org](mailto:adesoyen@pcaobus.org)); or Jennifer Williams, Associate General Counsel (202/591-4173, [williamsjg@pcaobus.org](mailto:williamsjg@pcaobus.org)).

3. Board's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rules Change

(a) Purpose

The proposed rules, including the new standard, will further investor protection by strengthening audit requirements, applying a more uniform, risk-based approach to an area of the audit that is of increasing prevalence and significance, and updating the standards in light of recent developments.

The financial statements of most companies reflect amounts in accounts and disclosures that require estimation, which may include fair value measurements or other types of estimates. These estimates appear in items like revenues from contracts with customers, valuations of certain financial and non-financial assets, impairments of long-lived assets, allowances for credit losses, and contingent liabilities. As financial reporting frameworks evolve toward greater use of estimates, accounting estimates are becoming more prevalent and more significant, often having a significant impact on a company's reported financial position and results of operations.

By their nature, accounting estimates, including fair value measurements, generally involve subjective assumptions and measurement uncertainty, making them susceptible to management bias. Some estimates involve complex processes and methods. As a result, accounting estimates are often some of the areas of greatest risk in an audit, requiring additional audit attention and appropriate application of professional skepticism. The challenges of auditing estimates may be compounded by cognitive bias, which could lead auditors to anchor on management's estimates and inappropriately weight confirmatory over contradictory evidence.

The Board's oversight activities, which have revealed a recurring pattern of deficiencies in this area, also raise concerns about auditors' application of professional skepticism, including addressing potential management bias, in this area of the audit. Over the years, PCAOB staff has provided guidance for auditors related to auditing accounting estimates, but this area remains challenging and practices among firms vary.

Currently, three PCAOB auditing standards primarily relate to accounting estimates, including fair value measurements. These three standards, which were originally adopted between 1988 and 2003, include common approaches for substantive testing but vary in the level of detail in describing the auditor's responsibilities with respect to those approaches. In addition, because the three standards predate the Board's risk assessment standards, they do not fully integrate risk assessment requirements that relate to identifying, assessing, and responding to the risks of material misstatement in accounting estimates.

The new standard builds on the common approaches in the three existing standards and will strengthen PCAOB auditing standards in the following respects:

- Providing direction to prompt auditors to devote greater attention to addressing potential management bias in accounting estimates, as part of applying professional skepticism.
- Extending certain key requirements in the existing standard on auditing fair value measurements, the newest and most comprehensive of the three existing standards, to other accounting estimates in significant accounts and disclosures, reflecting a more uniform approach to substantive testing for estimates.
- More explicitly integrating requirements with the Board's risk assessment standards to focus auditors on estimates with greater risk of material misstatement.
- Making other updates to the requirements for auditing accounting estimates to provide additional clarity and specificity.
- Providing a special topics appendix to address certain aspects unique to auditing fair values of financial instruments, including the use of pricing information from third parties such as pricing services and brokers or dealers.

*See Exhibit 3 for additional discussion of the purpose of the project.*

(b) Statutory Basis

The statutory basis for the proposed rules is Title I of the Act.

4. Board's Statement on Burden on Competition

Not applicable. The Board's consideration of the economic impact of the proposed rules is discussed in Exhibit 1.

5. Board's Statement on Comments on the Proposed Rules Change Received from Members, Participants or Others

The Board released the proposed rules for public comment on June 1, 2017. *See* Exhibit 2(a)(A). The PCAOB also issued a staff consultation paper ("SCP") for public comment. *See* Exhibit 2(a)(B). The Board received 81 written comment letters relating to its proposed rules and the SCP. *See* Exhibits 2(a)(C) and 2(a)(D). The Board's Standing Advisory Group also discussed the proposed rules and SCP at meetings on October 2, 2014, June 18, 2015, and November 30, 2017. *See* Exhibit 2(a)(E).

6. Extension of Time Period for Commission Action

The Board does not consent to an extension of the time period specified in Section 19(b)(2) of the Securities Exchange Act of 1934.

7. Basis for Summary Effectiveness Pursuant to Section 19(b)(3) of for Accelerated Effectiveness Pursuant to Section 19(b)(2)

Not applicable.

8. Proposed Rules Based on Rules of Another Board or of the Commission

Not applicable.

9. Exhibits

Exhibit A - Text of the Proposed Rules


Exhibit 1 - Form of Notice of Proposed Rules for Publication in the Federal Register.

- Exhibit 2(a)(A) - PCAOB Release No 2017-002 (Proposing Release)
- Exhibit 2(a)(B) - Staff Consultation Paper
- Exhibit 2(a)(C) - Alphabetical List of Comments and Written Comments on the rules proposed in PCAOB Release No. 2017-002
- Exhibit 2(a)(D) - Alphabetical List of Comments and Written Comments on Staff Consultation Paper
- Exhibit 2(a)(E) - Transcripts from SAG meetings on Oct. 2, 2014, June 18, 2015, and Nov. 30, 2017.
- Exhibit 3 - PCAOB Release No. 2018-005 (Adopting Release) and related materials.

10. Signatures

Pursuant to the requirements of the Act and the Securities Exchange Act of 1934, as amended, the Board has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

Public Company Accounting Oversight Board

By:   
\_\_\_\_\_  
Phoebe W. Brown  
Secretary

March 20, 2019

## **EXHIBIT A – TEXT OF THE PROPOSED RULES**

The Board adopted amendments to (1) AS 2501, *Auditing Accounting Estimates*, that replace that standard in its entirety and retitle it *Auditing Accounting Estimates, Including Fair Value Measurements*; (2) AS 1015, *Due Professional Care in the Performance of Work*; (3) AS 1105, *Audit Evidence*; (4) AS 1205, *Part of the Audit Performed by Other Independent Auditors*; (5) AS 2110, *Identifying and Assessing Risks of Material Misstatement*; (6) AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*; (7) AS 2401, *Consideration of Fraud in a Financial Statement Audit*; and (8) AS 2805, *Management Representations*. The Board also adopted technical and conforming amendments to other standards.

In addition, the Board approved rescission of (1) AS 2502, *Auditing Fair Value Measurements and Disclosures*, (2) AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*; and (3) AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501*.

The text of these proposed rule changes is set forth below.

### **AMENDMENT TO AS 2501**

AS 2501, *Auditing Accounting Estimates*, is replaced in its entirety and retitled as follows:

#### **Auditing Standard AS 2501: Auditing Accounting Estimates, Including Fair Value Measurements**

##### **Introduction**

.01 This standard establishes requirements for auditing accounting estimates (including fair value measurements) in significant accounts and disclosures in financial statements.

.02 An accounting estimate is a measurement or recognition in the financial statements of (or a decision to not recognize) an account, disclosure, transaction, or event that generally involves subjective assumptions and measurement uncertainty. For purposes of this standard, a fair value measurement is a form of accounting estimate.

**Objective**

.03 The objective of the auditor is to obtain sufficient appropriate evidence to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in the financial statements.

**Identifying and Assessing Risks of Material Misstatement**

.04 AS 2110, *Identifying and Assessing Risks of Material Misstatement*, establishes requirements regarding the process of identifying and assessing risks of material misstatement. This process includes (1) identifying accounting estimates in significant accounts and disclosures; (2) understanding the process by which accounting estimates are developed;<sup>1</sup> and (3) identifying and assessing the risks of material misstatement related to accounting estimates, which includes determining whether the components of estimates in significant accounts and disclosures are subject to significantly differing risks,<sup>2</sup> and which accounting estimates are associated with significant risks.

Note: AS 2110.60 and .60A set forth risk factors relevant to the identification of significant accounts and disclosures involving accounting estimates. Paragraph .A1 in Appendix A of this standard sets forth matters that the auditor should take into account for identifying and assessing risks of material misstatement related to the fair value of financial instruments.

**Responding to the Risks of Material Misstatement**

.05 AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*, requires the auditor to design and implement appropriate responses that address risks of material

---

<sup>1</sup> See AS 2110.28.

<sup>2</sup> See AS 2110.63.

misstatement. This includes applying substantive procedures to accounting estimates in significant accounts and disclosures.

Note: Responding to the risks of material misstatement involves evaluating whether the accounting estimates are in conformity with the applicable financial reporting framework<sup>3</sup> and reasonable in the circumstances, as well as evaluating potential management bias in accounting estimates and its effect on the financial statements.<sup>4</sup>

Note: If different components of an accounting estimate in a significant account or disclosure are subject to significantly differing risks of material misstatement, the auditor's responses should include procedures that are responsive to the differing risks of material misstatement.

Note: The auditor's responses to the assessed risks of material misstatement, particularly fraud risks, should involve the application of professional skepticism in gathering and evaluating audit evidence.<sup>5</sup> Audit evidence consists of both information that supports and corroborates management's assertions regarding the financial statements and information that contradicts such assertions.<sup>6</sup>

.06 AS 2301 provides that as the assessed risk of material misstatement increases, the evidence from substantive procedures that the auditor should obtain also increases. The evidence

---

<sup>3</sup> See AS 2301.36.

<sup>4</sup> See also paragraphs .24–.27 of AS 2810, *Evaluating Audit Results*, which describe the auditor's responsibilities for evaluating the qualitative aspects of the company's accounting practices, including evaluating potential management bias in accounting estimates and its effect on the financial statements.

<sup>5</sup> See AS 2301.07.

<sup>6</sup> See paragraph .02 of AS 1105, *Audit Evidence*.



provided by substantive procedures depends upon the mix of the nature, timing, and extent of those procedures.<sup>7</sup>

.07 In performing substantive procedures<sup>8</sup> to respond to the identified and assessed risks of material misstatement associated with accounting estimates, the auditor should test an accounting estimate using one or a combination of the following approaches:

- a. Test the company's process used to develop the accounting estimate (*see* paragraphs .09–.20 of this standard);
- b. Develop an independent expectation for comparison to the company's estimate (*see* paragraphs .21–.26 of this standard); and
- c. Evaluate audit evidence from events or transactions occurring after the measurement date related to the accounting estimate for comparison to the company's estimate (*see* paragraphs .27–.29 of this standard).

Note: The auditor may use any of the three approaches (individually or in combination). However, the auditor's decisions about the approach he or she takes to auditing an estimate should necessarily be informed by the auditor's understanding of the process the company used to develop the estimate and, if relevant controls are tested, the results of those tests.

### ***Use of an Auditor's Specialist***

.08 If the auditor engages a specialist to assist in obtaining or evaluating audit evidence, the auditor should also comply with the requirements of AS 1210, *Using the Work of an Auditor-*

---

<sup>7</sup> See AS 2301.37.

<sup>8</sup> AS 2301.36 states that the auditor should perform substantive procedures for each relevant assertion of each significant account and disclosure, regardless of the assessed level of control risk.

*Engaged Specialist*. If the auditor uses a specialist employed by the auditor to assist in obtaining or evaluating audit evidence, the auditor should also comply with the requirements set forth in Appendix C to AS 1201, *Supervision of the Audit Engagement*.<sup>9</sup>

### **Testing the Company's Process Used to Develop the Accounting Estimate**

.09 Testing the company's process involves performing procedures to test and evaluate the methods, data, and significant assumptions used in developing the estimate, in order to form a conclusion about whether the estimate is properly accounted for and disclosed in the financial statements.

### ***Evaluating the Company's Methods***

.10 The auditor should evaluate whether the methods used by the company to develop the accounting estimates are:

- a. In conformity with the requirements of the applicable financial reporting framework; and
- b. Appropriate for the nature of the related account or disclosure, taking into account the auditor's understanding of the company and its environment.<sup>10</sup>

Note: Evaluating whether the methods are in conformity with the requirements of the applicable financial reporting framework includes evaluating whether the data

---

<sup>9</sup> See paragraph .16 of AS 2101, *Audit Planning*, which describes the auditor's responsibility to determine whether specialized skill or knowledge is needed to perform appropriate risk assessments, plan or perform audit procedures, or evaluate audit results.

<sup>10</sup> AS 2110.12–.13 describes the auditor's responsibilities for obtaining an understanding of the company's selection and application of accounting principles, as part of understanding the company and its environment. In addition, AS 2301.05d provides that the auditor should evaluate whether the company's selection and application of significant accounting principles, particularly those related to subjective measurements and complex transactions, are indicative of bias that could lead to material misstatement of the financial statements.

is appropriately used and significant assumptions are appropriately applied under the applicable financial reporting framework.

.11 If the company has changed the method for determining the accounting estimate, the auditor should determine the reasons for such change and evaluate the appropriateness of the change. This includes evaluating changes in methods that represent changes in accounting principles in accordance with AS 2820, *Evaluating Consistency of Financial Statements*.<sup>11</sup> In circumstances where the company has determined that different methods result in significantly different estimates, the auditor should obtain an understanding of the reasons for the method selected by the company and evaluate the appropriateness of the selection.<sup>12</sup>

### ***Testing Data Used***

.12 AS 1105 requires the auditor, when using information produced by the company as audit evidence, to evaluate whether the information is sufficient and appropriate for purposes of the audit by performing procedures to (1) test the accuracy and completeness of the information or test the controls over the accuracy and completeness of that information, and (2) evaluate whether the information is sufficiently precise and detailed for purposes of the audit.<sup>13</sup>

.13 If the company uses data from an external source, the auditor should evaluate the relevance and reliability of the data in accordance with AS 1105.<sup>14</sup>

---

<sup>11</sup> See also AS 2820.06, which describes the auditor's responsibility for evaluating a change in accounting estimate effected by a change in accounting principle.

<sup>12</sup> See also AS 2301.05d.

<sup>13</sup> See AS 1105.10.

<sup>14</sup> See AS 1105.07–.08. Appendix B of AS 1105 describes the auditor's responsibilities for obtaining sufficient appropriate evidence in situations in which the valuation of an investment is based on the investee's financial results.

.14 The auditor should also evaluate whether the data is appropriately used by the company in developing the accounting estimate by evaluating whether:

- a. The data is relevant to the measurement objective for the accounting estimate;
- b. The data is internally consistent with its use by the company in other significant accounts and disclosures; and
- c. The source of the company's data has changed from the prior year and, if so, whether the change is appropriate.

***Identification of Significant Assumptions***

.15 The auditor should identify which of the assumptions used by the company are significant assumptions to the accounting estimate, that is, the assumptions that are important to the recognition or measurement of the accounting estimate in the financial statements. In identifying the significant assumptions, the auditor should take into account the nature of the accounting estimate, including related risk factors,<sup>15</sup> the requirements of the applicable financial reporting framework, and the auditor's understanding of the company's process for developing the estimate. Examples of assumptions that ordinarily would be considered significant assumptions include those that:

- a. Are sensitive to variation, such that minor changes in the assumption can cause significant changes in the estimate;
- b. Are susceptible to manipulation or bias;
- c. Involve unobservable data or company adjustments of observable data; or

---

<sup>15</sup> For this purpose, related risk factors are those risk factors in AS 2110.60–.60A that are relevant to the accounting estimate.

- d. Depend on the company's intent and ability to carry out specific courses of action.<sup>16</sup>

***Evaluating the Reasonableness of Significant Assumptions***

.16 The auditor should evaluate the reasonableness of the significant assumptions used by the company to develop the estimate, both individually and in combination. This includes evaluating whether:

- a. The company has a reasonable basis for the significant assumptions used and, when applicable, for its selection of assumptions from a range of potential assumptions; and
- b. The significant assumptions are consistent with the following, when applicable:
  - (1) Relevant industry, regulatory, and other external factors, including economic conditions;
  - (2) The company's objectives, strategies, and related business risks;<sup>17</sup>
  - (3) Existing market information;
  - (4) Historical or recent experience, taking into account changes in conditions and events affecting the company; and
  - (5) Other significant assumptions used by the company in other estimates tested.

---

<sup>16</sup> See paragraph .17 of this standard.

<sup>17</sup> The understanding of the company and its environment obtained in performing the procedures required by AS 2110.07–.09 can provide information relevant to evaluating the reasonableness of significant assumptions pursuant to paragraphs .16b(1) and .16b(2) of this standard.

Note: If the auditor evaluates the reasonableness of a significant assumption by developing an expectation of that assumption, the auditor should have a reasonable basis for that expectation.

Note: Paragraph .A10 in Appendix A of this standard sets forth additional requirements related to evaluating the reasonableness of unobservable inputs used in the valuation of financial instruments.

.17 When a significant assumption is based on the company's intent and ability to carry out a particular course of action, the auditor should take into account the following factors in evaluating the reasonableness of the assumption:

- a. The company's past history of carrying out its stated intentions;
- b. The company's written plans or other relevant documentation, such as budgets or minutes;
- c. The company's stated reasons for choosing a particular course of action; and
- d. The company's ability to carry out a particular course of action, which includes consideration of whether:
  - (1) The company has the financial resources and other means to carry out the action;
  - (2) Legal, regulatory, or contractual restrictions could affect the company's ability to carry out the action; and
  - (3) The company's plans require the action of third parties and, if so, whether those parties are committed to those actions.

.18 For critical accounting estimates,<sup>18</sup> the auditor should obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect on its financial condition or operating performance.<sup>19</sup> The auditor should take that understanding into account when evaluating the reasonableness of the significant assumptions and potential management bias.<sup>20</sup>

***Company's Use of a Specialist or Third-Party Pricing Information***

.19 *Using the Work of a Company's Specialist.* When a specialist employed or engaged by the company assists the company in developing an accounting estimate, the auditor should look to the requirements in Appendix A of AS 1105 with respect to using the work of a company's specialist as audit evidence to support a conclusion regarding a relevant assertion of a significant account or disclosure.

.20 *Using Pricing Information from a Third Party for Valuation of Financial Instruments.*

When the auditor is auditing the fair values of financial instruments, the company's use of pricing information from a third party affects the necessary procedures for testing the company's process. When third-party pricing information used by the company is significant to the valuation of financial instruments, the auditor should evaluate whether the company has used that information appropriately and whether it provides sufficient appropriate evidence.

---

<sup>18</sup> See paragraph .A3 of AS 1301, *Communications with Audit Committees*.

<sup>19</sup> See U.S. Securities and Exchange Commission, Financial Reporting Release No. 72, *Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations* (Dec. 19, 2003), 68 FR 75056 (Dec. 29, 2003), at Section V ("Critical Accounting Estimates") for management's responsibilities related to critical accounting estimates.

<sup>20</sup> See AS 2810.27.

Paragraphs .A2–.A9 in Appendix A of this standard set forth procedures for determining whether third-party pricing information provides sufficient appropriate evidence.<sup>21</sup>

### **Developing an Independent Expectation of the Estimate**

.21 Developing an independent expectation involves the auditor using some or all of his or her own methods, data, and assumptions to develop an expectation of the estimate for comparison to the company's estimate. The auditor's responsibilities with respect to developing an independent expectation depend on the source of the methods, data, and assumptions used, as discussed below.

Note: In developing an independent expectation, the auditor should take into account the requirements of the applicable financial reporting framework and the auditor's understanding of the company's process, including the significant assumptions used by the company, so that the auditor's expectation considers the factors relevant to the estimate.

### ***Independent Assumptions and Methods of the Auditor***

.22 When the auditor independently derives assumptions or uses his or her own method in developing an independent expectation, the auditor should have a reasonable basis for the assumptions and method used.

---

<sup>21</sup> If the third party is a service organization that is part of the company's information system over financial reporting, AS 2601, *Consideration of an Entity's Use of a Service Organization*, describes the auditor's responsibilities for obtaining an understanding of controls at the service organization.



***Data and Assumptions Obtained from a Third Party***

.23 If the auditor uses data or assumptions obtained from a third party in developing an independent expectation, the auditor should evaluate the relevance and reliability of the data and assumptions obtained in accordance with AS 1105.

Note: If the auditor develops an independent expectation of the fair value of financial instruments using pricing information from a third party, the auditor should evaluate whether the pricing information provides sufficient appropriate evidence. Paragraphs.A2–.A9 in Appendix A of this standard set forth procedures for evaluating whether third-party pricing information provides sufficient appropriate evidence.

***Use of Company Data, Assumptions, or Methods***

.24 If the auditor uses data produced by the company, significant assumptions used by the company, or the company's methods in developing an independent expectation, the auditor should:

- a. Test such data in accordance with paragraphs .12–.14 of this standard;
- b. Evaluate the reasonableness of such significant assumptions in accordance with paragraphs .16–.18 of this standard; and
- c. Evaluate such company methods in accordance with paragraphs .10–.11 of this standard.

Note: If the company's data, assumptions, or methods were those of a company's specialist, the auditor should look to the requirements of Appendix A of AS 1105 with respect to using the work of the specialist as audit evidence.

***Developing an Independent Expectation as a Range***

.25 If the auditor's independent expectation consists of a range rather than a point estimate, the auditor should determine that the range encompasses only reasonable outcomes, in conformity with the applicable financial reporting framework, and is supported by sufficient appropriate evidence.

***Comparing the Auditor's Independent Expectation to the Company's Accounting Estimate***

.26 The auditor should compare the auditor's independent expectation to the company's estimate and should evaluate the differences in accordance with AS 2810.13.<sup>22</sup>

**Evaluating Audit Evidence from Events or Transactions Occurring After the Measurement Date**

.27 Events and transactions that occur after the measurement date can provide relevant evidence to the extent they reflect conditions at the measurement date.<sup>23</sup>

.28 When the auditor obtains audit evidence from events or transactions that occur after the measurement date, the auditor should evaluate whether the audit evidence is sufficient, reliable, and relevant to the company's accounting estimate and whether the evidence supports or contradicts the company's estimate.

---

<sup>22</sup> AS 2810.13 states, among other things, that if a range of reasonable estimates is supported by sufficient appropriate audit evidence and the recorded estimate is outside of the range of reasonable estimates, the auditor should treat the difference between the recorded accounting estimate and the closest reasonable estimate as a misstatement. *See also* paragraph .30 of this standard.

<sup>23</sup> Evaluating audit evidence from events or transactions occurring after the measurement date, as contemplated in this standard, is a substantive test that differs from the other auditing procedures performed under paragraph .12 of AS 2801, *Subsequent Events*. *See also* paragraph .11 of AS 1015, *Due Professional Care in the Performance of Work*, which provides that the auditor's evaluation of accounting estimates is to be based on information that could reasonably be expected to be available through the date of the auditor's report.

.29 In evaluating whether an event or transaction provides evidence relevant<sup>24</sup> to the accounting estimate at the measurement date, the auditor should take into account changes in the company's circumstances and other relevant conditions between the event or transaction date and the measurement date.

Note: As the length of time from the measurement date increases, the likelihood that events and conditions have changed during the intervening period also increases.

### **Evaluating Audit Results**

.30 AS 2810 requires the auditor to evaluate the results of audit procedures performed on accounting estimates. This includes:

- a. Evaluating identified misstatements;<sup>25</sup>
- b. Evaluating the qualitative aspects of the company's accounting practices, including potential bias in management's judgments about the amounts and disclosures in the financial statements;<sup>26</sup>
- c. Evaluating potential bias in accounting estimates;<sup>27</sup> and
- d. Evaluating the presentation of the financial statements, including the disclosures and whether the financial statements contain the information essential for a fair

---

<sup>24</sup> AS 1105.07 provides factors regarding the relevance of audit evidence.

<sup>25</sup> See AS 2810.10–.23, which discuss accumulating and evaluating identified misstatements.

<sup>26</sup> See AS 2810.24–.26.

<sup>27</sup> See AS 2810.27.

presentation of the financial statements in conformity with the applicable financial reporting framework.<sup>28</sup>

.31 Evaluating potential bias in accounting estimates includes evaluating bias in estimates individually and in aggregate. It also includes evaluating whether bias results from the cumulative effect of changes in estimates.<sup>29</sup>

---

<sup>28</sup> See AS 2810.31.

<sup>29</sup> See AS 2810.27.

## **APPENDIX A—Special Topics**

### **Identifying and Assessing Risks of Material Misstatement Related to the Fair Value of Financial Instruments**

.A1 To identify and assess risks of material misstatement related to the fair value of financial instruments, the auditor should obtain an understanding of the nature of the financial instruments being valued. Matters that the auditor should take into account include:

- a. The terms and characteristics of the financial instruments;
- b. The extent to which the fair value of the type of financial instruments is based on inputs that are observable directly or indirectly; and
- c. Other factors affecting the valuation of the financial instruments, such as credit or counterparty risk, market risk, and liquidity risk.

Note: In general, fair values of financial instruments based on trades of identical financial instruments in an active market have a lower risk of material misstatement than fair values derived from observable trades of similar financial instruments or unobservable inputs.

### **Use of Pricing Information from Third Parties as Audit Evidence**

.A2 When the auditor uses pricing information from a third party to develop an independent expectation or evaluates pricing information provided by a third party used by the company,<sup>1</sup> the

---

<sup>1</sup> If the third party is a service organization that is part of the company's information system over financial reporting, AS 2601, *Consideration of an Entity's Use of a Service Organization*, describes the auditor's responsibilities for obtaining an understanding of controls at the service organization.

auditor should perform procedures to determine whether the pricing information provides sufficient appropriate<sup>2</sup> evidence to respond to the risks of material misstatement.<sup>3</sup>

.A3 The following paragraphs address pricing information from:

- a. Organizations that routinely provide uniform pricing information to users, generally on a subscription basis ("pricing services");<sup>4</sup> and
- b. Brokers or dealers.

***Using Pricing Information from Pricing Services***

.A4 The reliability of audit evidence depends on the nature and source of the evidence and the circumstances under which it is obtained.<sup>5</sup> The following factors affect the reliability of pricing information provided by a pricing service:

- a. The experience and expertise of the pricing service relative to the types of financial instruments being valued, including whether the types of financial instruments being valued are routinely priced by the pricing service;

---

<sup>2</sup> See paragraph .06 of AS 1105, *Audit Evidence*, which states that appropriateness is the measure of the quality of audit evidence, i.e., its relevance and reliability. To be appropriate, audit evidence must be both relevant and reliable in providing support for the conclusions on which the auditor's opinion is based.

<sup>3</sup> Under paragraph .09 of AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*, the auditor should design audit procedures to obtain more persuasive audit evidence the higher the auditor's assessment of risk.

<sup>4</sup> The requirements in Appendix A of AS 1105 for an auditor using the work of a company's specialist or AS 1210, *Using the Work of an Auditor-Engaged Specialist* for an auditor using the work of an auditor-engaged specialist apply when a pricing service is engaged to individually develop a price for a specific financial instrument not routinely priced for its subscribers.

<sup>5</sup> See AS 1105.08.

- b. Whether the methodology used by the pricing service in determining fair value of the types of financial instruments being valued is in conformity with the applicable financial reporting framework; and
- c. Whether the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service.

Note: The auditor should take into account the results of the procedures performed under AS 2410, *Related Parties*, in determining whether the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service.

Note: The existence of a process by which subscribers can challenge a pricing service's pricing information does not, by itself, mean that company management has the ability to directly or indirectly control or significantly influence that pricing service.

Note: If the auditor performs procedures to assess the reliability of pricing information provided by a pricing service at an interim date, the auditor should evaluate whether the pricing service has changed its valuation process relative to the types of financial instruments being valued, and, if so, the effect of such changes on the pricing information provided at period end.

.A5 The relevance of audit evidence refers to its relationship to the assertion or to the objective of the control being tested.<sup>6</sup> The following factors affect the relevance of pricing information provided by a pricing service:

- a. Whether the fair values are based on quoted prices in active markets for identical financial instruments;
- b. When the fair values are based on transactions of similar financial instruments, how those transactions are identified and considered comparable to the financial instruments being valued; and
- c. When no recent transactions have occurred for either the financial instrument being valued or similar financial instruments, or the price was developed using a quote from a broker or dealer, how the fair value was developed, including whether the inputs used represent the assumptions that market participants would use when pricing the financial instruments.

.A6 When the fair values are based on transactions of similar financial instruments, the auditor should perform additional audit procedures to evaluate the process used by the pricing service, including evaluating how transactions are identified, considered comparable, and used to value the types of financial instruments selected for testing.

Note: When a pricing service uses the same process to price a group of financial instruments, the audit procedures to evaluate the process can be performed for those financial instruments as a group, rather than for each instrument

---

<sup>6</sup> See AS 1105.07.



individually, if the financial instruments are similar in nature (taking into account the matters in paragraph .A1).<sup>7</sup>

.A7 When no recent transactions have occurred for either the financial instrument being valued or similar financial instruments, the auditor should perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of observable and unobservable inputs used by the pricing service.

***Using Pricing Information from Multiple Pricing Services***

.A8 When pricing information is obtained from multiple pricing services, less information is needed about the particular methods and inputs used by the individual pricing services when the following conditions are met:

- a. There are recent trades of the financial instrument or of financial instruments substantially similar to the financial instruments being valued;
- b. The type of financial instrument being valued is routinely priced by several pricing services;
- c. Prices obtained are reasonably consistent across pricing services, taking into account the nature and characteristics of the financial instruments being valued, and market conditions; and
- d. The pricing information for the type of financial instrument is generally based on inputs that are observable.

---

<sup>7</sup> Other procedures required by this Appendix may also be performed at a group level, provided that the conditions set forth in the note to .A6 are met: the financial instruments that compose the group are similar in nature, taking into account the matters in paragraph .A1, and are priced by the pricing service using the same process.

Note: When the above conditions are not met, the auditor should perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of observable and unobservable inputs for a representative price for the type of financial instrument being valued.

***Using Pricing Information from a Broker or Dealer***

.A9 When a fair value measurement is based on a quote from a broker or dealer ("broker quote"), the relevance and reliability of the evidence provided by the broker quote depend on whether:

- a. The broker or dealer has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the broker or dealer;
- b. The broker or dealer making the quote is a market maker that transacts in the same type of financial instrument;
- c. The broker quote reflects market conditions as of the financial statement date;
- d. The broker quote is binding on the broker or dealer; and
- e. There are any restrictions, limitations, or disclaimers in the broker quote and, if so, their nature.<sup>8</sup>

Note: Broker quotes generally provide more relevant and reliable evidence when they are timely, binding quotes, without any restrictions, limitations, or disclaimers, from unaffiliated market makers transacting in the same type of financial instrument. If the broker quote does not provide sufficient appropriate evidence, the auditor should perform

---

<sup>8</sup> See AS 1105.08.

procedures to obtain relevant and reliable pricing information from another pricing source pursuant to the requirements of this appendix.

Note: The auditor should take into account the results of the procedures performed under AS 2410 in determining whether the broker or dealer has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the broker or dealer.

### ***Unobservable Inputs***

.A10 When the valuation of a financial instrument includes unobservable inputs that are significant to the valuation, the auditor should obtain an understanding of how unobservable inputs were determined and evaluate the reasonableness of the unobservable inputs by taking into account the following:

- a. Whether modifications made to observable information generally reflect the assumptions that market participants would use when pricing the financial instrument, including assumptions about risk; and
- b. How the company determined its fair value measurement, including whether it appropriately considered the information available.

**OTHER RELATED AMENDMENTS TO PCAOB AUDITING STANDARDS*****Amendment to AS 1015, Due Professional Care in the Performance of Work***

AS 1015 is amended by revising paragraph .11 to read as follows:

.11 The independent auditor's objective is to obtain sufficient appropriate evidential matter to provide him or her with a reasonable basis for forming an opinion. The nature of most evidence derives, in part, from the concept of selective testing of the data being audited, which involves judgment regarding both the areas to be tested and the nature, timing, and extent of the tests to be performed. In addition, judgment is required in interpreting the results of audit testing and evaluating audit evidence. Even with good faith and integrity, mistakes and errors in judgment can be made. Furthermore, many accounting presentations contain accounting estimates, the measurement of which is inherently uncertain and depends on the outcome of future events. The auditor exercises professional judgment in evaluating the reasonableness of accounting estimates in significant accounts and disclosures based on information that could reasonably be expected to be available through the date of the auditor's report.<sup>5</sup> As a result of these factors, in the great majority of cases, the auditor has to rely on evidence that is persuasive rather than convincing.

<sup>5</sup> See AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, which discusses the auditor's responsibility to obtain sufficient appropriate evidence to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in the financial statements.

**Amendments to AS 1105, *Audit Evidence***

AS 1105 is amended by adding a note at the end of paragraph .08:

Note: If a third party provides evidence to an auditor subject to restrictions, limitations, or disclaimers, the auditor should evaluate the effect of the restrictions, limitations, or disclaimers on the reliability of that evidence.

AS 1105 is amended by adding a new Appendix B:

**Appendix B—Audit Evidence Regarding Valuation of Investments Based on Investee****Financial Results**

.B1 For valuations based on an investee's financial results, the auditor should obtain sufficient appropriate evidence in support of the investee's financial results. The auditor should read available financial statements of the investee and the accompanying audit report, if any. Financial statements of the investee that have been audited by an auditor whose report is satisfactory, for this purpose,<sup>1</sup> to the investor's auditor may constitute sufficient appropriate evidence.

<sup>1</sup> In determining whether the report of another auditor is satisfactory for this purpose, the auditor may consider performing procedures such as making inquiries as to the professional reputation and standing of the other auditor, visiting the other auditor and discussing the audit procedures followed and the results thereof, and reviewing the audit program and/or working papers of the other auditor.

.B2 If in the auditor's judgment additional evidence is needed, the auditor should perform procedures to gather such evidence. For example, the auditor may conclude that additional evidence is needed because of significant differences in fiscal year-ends, significant differences

in accounting principles, changes in ownership, changes in conditions affecting the use of the equity method, or the materiality of the investment to the investor's financial position or results of operations. Examples of procedures the auditor may perform are reviewing information in the investor's files that relates to the investee such as investee minutes and budgets and cash flows information about the investee and making inquiries of investor management about the investee's financial results.

.B3 If the investee's financial statements are not audited, or if the investee auditor's report is not satisfactory to the investor's auditor for this purpose, the investor's auditor should apply, or should request that the investor arrange with the investee to have another auditor apply, appropriate auditing procedures to such financial statements, considering the materiality of the investment in relation to the financial statements of the investor.

.B4 If the carrying amount of the security reflects factors that are not recognized in the investee's financial statements or fair values of assets that are materially different from the investee's carrying amounts, the auditor should obtain sufficient appropriate evidence in support of these amounts.

Note: The auditor should look to the requirements of AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, and the applicable financial reporting framework with respect to auditing fair value measurements and evaluating asset impairment.

.B5 There may be a time lag in reporting between the date of the financial statements of the investor and that of the investee. A time lag in reporting should be consistent from period to period. If a time lag between the date of the entity's financial statements and those of the investee has a material effect on the entity's financial statements, the auditor should determine whether

the entity's management has properly considered the lack of comparability. The effect may be material, for example, because the time lag is not consistent with the prior period in comparative statements or because a significant transaction occurred during the time lag. If a change in time lag occurs that has a material effect on the investor's financial statements, an explanatory paragraph, including an appropriate title, should be added to the auditor's report because of the change in reporting period.<sup>2</sup>

<sup>2</sup> See AS 2820, *Evaluating Consistency of Financial Statements*.

.B6 The auditor should evaluate management's conclusion about the need to recognize an impairment loss for a decline in the security's fair value below its carrying amount that is other than temporary. In addition, with respect to subsequent events and transactions of the investee occurring after the date of the investee's financial statements but before the date of the investor auditor's report, the auditor should read available interim financial statements of the investee and make appropriate inquiries of the investor to identify subsequent events and transactions that are material to the investor's financial statements. Such events or transactions of the type contemplated in paragraphs .05–.06 of AS 2801, *Subsequent Events*, should be disclosed in the notes to the investor's financial statements and (where applicable) labeled as unaudited information. For the purpose of recording the investor's share of the investee's results of operations, recognition should be given to events or transactions of the type contemplated in AS 2801.03.

.B7 Evidence relating to material transactions between the entity and the investee should be obtained to evaluate (a) the propriety of the elimination of unrealized profits and losses on transactions between the entity and the investee that is required when the equity method of

accounting is used to account for an investment under the applicable financial reporting framework and (b) the adequacy of disclosures about material related party transactions.

**Amendment to AS 1205, *Part of the Audit Performed by Other Independent Auditors***

AS 1205 is amended by adding footnote 6 to paragraph .14, such that AS 1205.14 reads as follows:

**Long-Term Investments**

.14 With respect to investments accounted for under the equity method, the auditor who uses another auditor's report for the purpose of reporting on the investor's equity in underlying net assets and its share of earnings or losses and other transactions of the investee is in the position of a principal auditor using the work and reports of other auditors. Under these circumstances, the auditor may decide that it would be appropriate to refer to the work and report of the other auditor in his report on the financial statements of the investor. (*See* paragraphs .06–.11.) When the work and reports of other auditors constitute a major element of evidence with respect to investments accounted for under the cost method, the auditor may be in a position analogous to that of a principal auditor.<sup>6</sup>

<sup>6</sup> For situations in which the valuation of an investment selected for testing is based on the investee's financial results and neither AS 1201 nor AS 1205 applies, the auditor should look to the requirements of Appendix B of AS 1105, *Audit Evidence*.

**Amendments to AS 1301, *Communications with Audit Committees***

AS 1301 is amended by revising footnote 17 to paragraph .12 to read as follows:



<sup>17</sup> See AS 2501, *Auditing Accounting Estimates, Including Fair Value*

*Measurements*, which discusses the auditor's responsibility to obtain sufficient appropriate evidence to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in the financial statements.

AS 1301 is amended by revising footnote 23 to paragraph .13 to read as follows:

<sup>23</sup> See AS 2501, which discusses the auditor's responsibility to obtain sufficient appropriate evidence to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in the financial statements.

AS 1301 is amended by deleting the thirteenth bullet of Appendix B, referring to AS 2502, *Auditing Fair Value Measurements and Disclosures*.

### **Amendments to AS 2110, *Identifying and Assessing Risks of Material Misstatement***

AS 2110 is amended by revising subparagraphs (d) and (e) of paragraph .28 and adding a second and third note, such that AS 2110.28 reads as follows:

.28 *Information System Relevant to Financial Reporting.* The auditor should obtain an understanding of the information system, including the related business processes, relevant to financial reporting, including:

- a. The classes of transactions in the company's operations that are significant to the financial statements;
- b. The procedures, within both automated and manual systems, by which those transactions are initiated, authorized, processed, recorded, and reported;

- c. The related accounting records, supporting information, and specific accounts in the financial statements that are used to initiate, authorize, process, and record transactions;
- d. How the information system captures events and conditions, other than transactions,<sup>16</sup> that are significant to the financial statements;
- e. Whether the related accounts involve accounting estimates and if so, the processes used to develop accounting estimates, including:
  - (1) The methods used, which may include models;
  - (2) The data and assumptions used, including the source from which they are derived; and
  - (3) The extent to which the company uses third parties (other than specialists), including the nature of the service provided and the extent to which the third parties use company data and assumptions; and
- f. The period-end financial reporting process.

Note: Appendix B discusses additional considerations regarding manual and automated systems and controls.

Note: The requirements in AS 2601, *Consideration of an Entity's Use of a Service Organization*, with respect to the auditor's responsibilities for obtaining an understanding of controls at the service organization apply when the company uses a service organization that is part of the company's information system over financial reporting.

Note: For critical accounting estimates,<sup>16A</sup> paragraph .18 of AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, provides that the auditor should obtain an understanding of how management analyzed the sensitivity of its

significant assumptions to change, based on other reasonably likely outcomes that would have a material effect on its financial condition or operating performance,<sup>16B</sup> and take that understanding into account when evaluating the reasonableness of significant assumptions and potential management bias.

<sup>16</sup> Examples of such events and conditions include depreciation and amortization and conditions affecting the recoverability of assets.

<sup>16A</sup> See paragraph .A3 of AS 1301, *Communications with Audit Committees*.

<sup>16B</sup> See U.S. Securities and Exchange Commission, Financial Reporting Release No. 72, *Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations* (Dec. 19, 2003), 68 FR 75056 (Dec. 29, 2003), at Section V ("Critical Accounting Estimates") for management's responsibilities related to critical accounting estimates.

AS 2110 is amended by revising the first bullet of paragraph .52 to read as follows:

- An exchange of ideas, or "brainstorming," among the key engagement team members, including the engagement partner, about how and where they believe the company's financial statements might be susceptible to material misstatement due to fraud, how management could perpetrate and conceal fraudulent financial reporting, and how assets of the company could be misappropriated, including (a) the susceptibility of the financial statements to material misstatement through related party transactions, (b) how fraud might be perpetrated or concealed by omitting or presenting incomplete or inaccurate disclosures, and (c) how the financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures;

AS 2110 is amended by adding a new paragraph .60A after paragraph .60:

.60A Additional risk factors relevant to the identification of significant accounts and disclosures involving accounting estimates include the following:

- a. The degree of uncertainty associated with the future occurrence or outcome of events and conditions underlying the significant assumptions;
- b. The complexity of the process for developing the accounting estimate;
- c. The number and complexity of significant assumptions associated with the process;
- d. The degree of subjectivity associated with significant assumptions (for example, because of significant changes in the related events and conditions or a lack of available observable inputs); and
- e. If forecasts are important to the estimate, the length of the forecast period and degree of uncertainty regarding trends affecting the forecast.

**Amendments to AS 2301, The Auditor's Responses to the Risks of Material Misstatement**

AS 2301 is amended by adding a second note at the end of paragraph .17:

Note: For certain accounting estimates involving complex models or processes, it might be impossible to design effective substantive tests that, by themselves, would provide sufficient appropriate evidence regarding the assertions.

AS 2301 is amended by adding a note at the end of paragraph .36:

Note: Performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.

AS 2301 is amended by deleting footnote 19 to paragraph .38.

AS 2301 is amended by adding a footnote to paragraph .40, such that AS 2301.40 reads as follows:

.40 Taking into account the types of potential misstatements in the relevant assertions that could result from identified risks, as required by paragraph .09b., can help the auditor determine the types and combination of substantive audit procedures that are necessary to detect material misstatements in the respective assertions.<sup>19</sup>

<sup>19</sup> See, e.g., AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, which discusses the auditor's responsibility to obtain sufficient appropriate evidence to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in the financial statements.

#### **Amendments to AS 2401, *Consideration of Fraud in a Financial Statement Audit***

AS 2401 is amended by revising the first paragraph of the third bullet of paragraph .54 to read as follows:

- *Management estimates.* The auditor may identify a fraud risk involving the development of management estimates. This risk may affect a number of accounts and assertions, including asset valuation, estimates relating to specific transactions (such as acquisitions,

restructurings, or disposals of a segment of the business), and other significant accrued liabilities (such as pension and other postretirement benefit obligations, or environmental remediation liabilities). The risk may also relate to significant changes in assumptions relating to recurring estimates.

AS 2401 is amended by revising the first sentence of the second paragraph of the third bullet of paragraph .54 to read as follows:

In addressing an identified fraud risk involving accounting estimates, the auditor may want to supplement the audit evidence otherwise obtained (*see AS 2501, Auditing Accounting Estimates, Including Fair Value Measurements*).

AS 2401 is amended by revising paragraphs .63 through .64 to read as follows:

**.63     *Reviewing accounting estimates for biases that could result in material misstatement due to fraud.*** In preparing financial statements, management is responsible for making a number of judgments or assumptions that affect accounting estimates and for monitoring the reasonableness of such estimates on an ongoing basis. Fraudulent financial reporting often is accomplished through intentional misstatement of accounting estimates. AS 2810.24–.27 discuss the auditor's responsibilities for assessing bias in accounting estimates and the effect of bias on the financial statements.

**.64     The auditor should perform a retrospective review of accounting estimates in significant accounts and disclosures<sup>24</sup> by comparing the prior year's estimates to actual results, if any, to determine whether management's judgments and assumptions relating to the estimates indicate a possible bias on the part of management. The accounting estimates selected for testing should be**

those for which there is an assessed fraud risk. With the benefit of hindsight, a retrospective review should provide the auditor with additional information about whether there may be a possible bias on the part of management in making the current-year estimates. This review, however, is not intended to call into question the auditor's professional judgments made in the prior year that were based on information available at the time.

<sup>24</sup> See AS 2110.60–.64, which describes requirements related to the identification of significant accounts and disclosures.

**Rescission of AS 2502, *Auditing Fair Value Measurements and Disclosures*, and AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities***

AS 2502 and AS 2503 are rescinded.

**Amendment to AS 2805, *Management Representations***

AS 2805 is amended by adding a new subparagraph to paragraph .06, after subparagraph s:

*s-1.* The appropriateness of the methods, the consistency in application, the accuracy and completeness of data, and the reasonableness of significant assumptions used by the company in developing accounting estimates.

**Amendment to AS 3101, *The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion***

AS 3101 is amended by revising footnote 34 to paragraph .18 to read as follows:

<sup>34</sup> See paragraph .B5 of Appendix B, *Audit Evidence Regarding Valuation of Investments Based on Investee Financial Results*, of AS 1105, *Audit Evidence*.

**Amendment to AS 4105, *Reviews of Interim Financial Information***

AS 4105 is amended by deleting footnote 36 to paragraph .B1.

**Rescission of AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501***

AI 16 is rescinded.



## EXHIBIT 1

## SECURITIES AND EXCHANGE COMMISSION

(Release No. 34-XXXXX; File No. PCAOB-2019-02)

[Date]

Public Company Accounting Oversight Board; Notice of Filing of Proposed Rules on Auditing Accounting Estimates, Including Fair Value Measurements, and Amendments to PCAOB Auditing Standards

Pursuant to Section 107(b) of the Sarbanes-Oxley Act of 2002 (the "Act" or "Sarbanes-Oxley Act"), notice is hereby given that on [Date of Form 19b-4 Submission], the Public Company Accounting Oversight Board (the "Board" or "PCAOB") filed with the Securities and Exchange Commission (the "Commission" or "SEC") the proposed rules described in Items I and II below, which items have been prepared by the Board. The Commission is publishing this notice to solicit comments on the proposed rules from interested persons.

I. Board's Statement of the Terms of Substance of the Proposed Rules

On December 20, 2018, the Board adopted a new rule and amendments to auditing standards (collectively, the "proposed rules"), under which the three existing standards related to auditing estimates, including fair value measurements, will be replaced with a single, updated standard. The text of the proposed rules appears in Exhibit A to the SEC Filing Form 19b-4 and is available on the Board's website at <https://pcaobus.org/Rulemaking/Pages/docket-043-auditing-accounting-estimates-fair-value-measurements.aspx> and at the Commission's Public Reference Room.

II. Board's Statement of the Purpose of, and Statutory Basis for, the Proposed Rules

In its filing with the Commission, the Board included statements concerning the purpose of, and basis for, the proposed rules and discussed any comments it received on the proposed rules. The text of these statements may be examined at the places specified in Item IV below. The Board has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements. In addition, the Board is requesting that, pursuant to Section 103(a)(3)(C) of the Sarbanes-Oxley Act, the Commission approve the proposed rules for application to audits of emerging growth companies ("EGCs").<sup>1</sup> The Board's request is set forth in section D.

A. Board's Statement of the Purpose of, and Statutory Basis for, the Proposed Rules

(a) Purpose

Summary

The Board has adopted amendments to its standards for auditing accounting estimates and fair value measurements, under which three existing standards will be replaced with a single, updated standard ("AS 2501 (Revised)" or the "new standard"). As discussed in more detail below, in the Board's view, the new standard and related amendments will further investor protection by strengthening audit requirements, applying a more uniform, risk-based approach to an area of the audit that is of increasing prevalence and significance, and updating the standards in light of recent developments.

The financial statements of most companies reflect amounts in accounts and disclosures that require estimation, which may include fair value measurements or other

---

<sup>1</sup> The term "emerging growth company" is defined in Section 3(a)(80) of the Securities Exchange Act of 1934 (15 U.S.C. 78c(a)(80)). *See also Inflation Adjustments and Other Technical Amendments Under Titles I and III of the JOBS Act*, Rel. 33-10332 (Mar. 31, 2017), 82 FR 17545 (Apr. 12, 2017).

types of estimates. These estimates appear in items like revenues from contracts with customers, valuations of certain financial and non-financial assets, impairments of long-lived assets, allowances for credit losses, and contingent liabilities. As financial reporting frameworks evolve toward greater use of estimates, accounting estimates are becoming more prevalent and more significant, often having a significant impact on a company's reported financial position and results of operations.

By their nature, accounting estimates, including fair value measurements, generally involve subjective assumptions and measurement uncertainty, making them susceptible to management bias. Some estimates involve complex processes and methods. As a result, accounting estimates are often some of the areas of greatest risk in an audit, requiring additional audit attention and appropriate application of professional skepticism. The challenges of auditing estimates may be compounded by cognitive bias, which could lead auditors to anchor on management's estimates and inappropriately weight confirmatory over contradictory evidence.

The Board's oversight activities, which have revealed a recurring pattern of deficiencies in this area, also raise concerns about auditors' application of professional skepticism, including addressing potential management bias, in this area of the audit. Over the years, PCAOB staff has provided guidance for auditors related to auditing accounting estimates, but this area remains challenging and practices among firms vary.

Currently, three PCAOB auditing standards primarily relate to accounting estimates, including fair value measurements. These three standards, which were originally adopted between 1988 and 2003, include common approaches for substantive testing but vary in the level of detail in describing the auditor's responsibilities with

respect to those approaches. In addition, because the three standards predate the Board's risk assessment standards, they do not fully integrate risk assessment requirements that relate to identifying, assessing, and responding to the risks of material misstatement in accounting estimates.

The new standard builds on the common approaches in the three existing standards and will strengthen PCAOB auditing standards in the following respects:

- Providing direction to prompt auditors to devote greater attention to addressing potential management bias in accounting estimates, as part of applying professional skepticism.
- Extending certain key requirements in the existing standard on auditing fair value measurements, the newest and most comprehensive of the three existing standards, to other accounting estimates in significant accounts and disclosures, reflecting a more uniform approach to substantive testing for estimates.
- More explicitly integrating requirements with the Board's risk assessment standards to focus auditors on estimates with greater risk of material misstatement.
- Making other updates to the requirements for auditing accounting estimates to provide additional clarity and specificity.
- Providing a special topics appendix to address certain aspects unique to auditing fair values of financial instruments, including the use of pricing information from third parties such as pricing services and brokers or dealers.

The Board has adopted the new standard and related amendments after substantial outreach, including two rounds of public comment. Commenters generally supported the Board's objective of improving the quality of audits involving accounting estimates, and suggested areas where the proposed requirements could be modified or clarified. The Board has taken all of these comments, as well as observations from PCAOB oversight activities and the relevant academic literature, into account.

In a separate PCAOB release, the Board also adopted amendments to its standards for using the work of specialists, which are often involved in developing, or assisting in the evaluation of, accounting estimates.<sup>2</sup> Certain provisions of the new standard include references to AS 1210, *Using the Work of an Auditor-Engaged Specialist*; AS 1201, *Supervision of the Audit Engagement*; and AS 1105, *Audit Evidence*, as amended.

In its consideration of the new standard and related amendments, the Board is mindful of the significant advances in technology that have occurred in recent years, including increased use of data analysis tools and emerging technologies. An increased use of technology-based tools, together with future developments in the use of data and technology, could have a fundamental impact on the audit process. The Board is actively exploring these potential impacts through ongoing staff research and outreach.

In the context of this rulemaking, the Board considered how changes in technology could affect the processes companies use to develop accounting estimates, including fair value measurements, and the tools and techniques auditors apply to audit them. The Board believes that the new standard and related amendments are sufficiently

---

<sup>2</sup> See *Amendments to Auditing Standards for Auditor's Use of the Work of Specialists*, PCAOB Release No. 2018-006 (Dec. 20, 2018) ("Specialists Release").

principles-based and flexible to accommodate continued advances in the use of data and technology by both companies and auditors. The Board will continue to monitor advances in this area and any effect they may have on the application of the new standard.

The new standard and related amendments apply to all audits conducted under PCAOB standards. Subject to approval by the Commission, the new standard and related amendments will take effect for audits for fiscal years ending on or after December 15, 2020.

(b) Statutory Basis

The statutory basis for the proposed rules is Title I of the Act.

B. Board's Statement on Burden on Competition

Not applicable. The Board's consideration of the economic impacts of the proposed rules is discussed in section D below.

C. Board's Statement on Comments on the Proposed Rules Received from Members, Participants or Others

The Board released the proposed rules for public comment in *Proposed Auditing Standard—Auditing Accounting Estimates, Including Fair Value Measurements, and Proposed Amendments to PCAOB Auditing Standards*, PCAOB Release No. 2017-002 (June 1, 2017) ("proposal" or "Estimates Proposing Release"). The PCAOB also issued for public comment a Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements* (Aug. 19, 2014) ("SCP"). Copies of Release No. 2017-002, the SCP, and the comment letters received in response to the PCAOB's requests for comment are available on the PCAOB's website at <https://pcaobus.org/Rulemaking/Pages/docket-043-auditing-accounting-estimates-fair-value-measurements.aspx>. The PCAOB received

81 written comment letters. The Board's response to the comments received and the changes made to the rules in response to the comments received are discussed below.

### Background

Accounting estimates are an essential part of financial statements. Most companies' financial statements reflect accounts or amounts in disclosures that require estimation. Accounting estimates are pervasive to financial statements, often substantially affecting a company's financial position and results of operations. Examples of accounting estimates include certain revenues from contracts with customers, valuations of financial and non-financial assets, impairments of long-lived assets, allowances for credit losses, and contingent liabilities.

The evolution of financial reporting frameworks toward greater use of estimates includes expanded use of fair value measurements that need to be estimated. For purposes of this rulemaking, a fair value measurement is considered a form of accounting estimate because it generally shares many of the same characteristics with other estimates, including subjective assumptions and measurement uncertainty.

### Rulemaking History

The PCAOB has engaged in extensive outreach to explore the views of market participants and others on the potential for improvement of the auditing standards related to accounting estimates. This includes discussions with the Board's Standing Advisory Group ("SAG") and the Pricing Sources Task Force. In addition, in August 2014, the PCAOB issued the SCP, to solicit comments on various issues, including the potential need for standard setting and key aspects of a potential new standard and related requirements.

In June 2017, the Board proposed to replace three auditing standards that primarily relate to accounting estimates, including fair value measurements, with a single standard. The proposal included a special topics appendix addressing certain matters relevant to auditing the fair value of financial instruments and amendments to several PCAOB standards to align them with the single standard. A number of commenters across many affiliations supported the Board's efforts to strengthen auditing practices and update its standards in this area.

In addition to this outreach, the Board's approach has been informed by, among other things, observations from PCAOB oversight activities and SEC enforcement actions and consideration of academic research, the standard on auditing accounting estimates recently adopted by the International Auditing and Assurance Standards Board ("IAASB"), and the extant standard on auditing accounting estimates of the Auditing Standards Board ("ASB") of the American Institute of Certified Public Accountants.

#### Overview of Existing Requirements

The primary PCAOB standards that apply specifically to auditing accounting estimates, including fair value measurements are:

- AS 2501, *Auditing Accounting Estimates* (originally issued in April 1988) ("accounting estimates standard")—applies to auditing accounting estimates in general.
- AS 2502, *Auditing Fair Value Measurements and Disclosures* (originally issued in January 2003) ("fair value standard")—applies to auditing the measurement and disclosure of assets, liabilities, and specific components of equity presented or disclosed at fair value in financial statements.



- AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (originally issued in September 2000) ("derivatives standard")—applies to auditing financial statement assertions for derivative instruments, hedging activities, and investments in securities. Its scope includes requirements for auditing the valuation of derivative instruments and securities, including those measured at fair value.

The accounting estimates standard, fair value standard, and derivatives standard are referred to collectively as the "estimates standards."

In addition, the Board's risk assessment standards,<sup>3</sup> which set forth requirements for the auditor's assessment of and response to risk in an audit, include requirements that relate to accounting estimates. These requirements involve procedures regarding identifying and assessing risks of material misstatement in accounting estimates,<sup>4</sup> identifying and evaluating misstatements in accounting estimates,<sup>5</sup> and evaluating potential management bias associated with accounting estimates.<sup>6</sup> PCAOB standards also

---

<sup>3</sup> The Board's "risk assessment standards" include AS 1101, *Audit Risk*; AS 1105; AS 1201; AS 2101, *Audit Planning*; AS 2105, *Consideration of Materiality in Planning and Performing an Audit*; AS 2110, *Identifying and Assessing Risks of Material Misstatement*; AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*; and AS 2810, *Evaluating Audit Results*.

<sup>4</sup> See generally AS 2110.13.

<sup>5</sup> See AS 2810.13.

<sup>6</sup> See AS 2810.27.

set forth requirements for the auditor to plan and perform his or her work with due professional care, which includes the application of professional skepticism.<sup>7</sup>

Both the accounting estimates standard and the fair value standard provide that the auditor may apply one or a combination of three approaches to substantively test an accounting estimate:

- Testing management's process. This generally involves:
  - Evaluating the reasonableness of assumptions used by management that are significant to the estimate, and testing and evaluating the completeness, accuracy, and relevance of data used;<sup>8</sup> and
  - Evaluating the consistency of management's assumptions with other information.<sup>9</sup>
- Developing an independent estimate. This generally involves using management's assumptions, or alternative assumptions, to develop an independent estimate or an expectation of an estimate.<sup>10</sup>
- Reviewing subsequent events or transactions. This generally involves using events or transactions occurring subsequent to the balance sheet date, but

---

<sup>7</sup> See generally paragraph .07 of AS 1015, *Due Professional Care in the Performance of Work*.

<sup>8</sup> See generally AS 2501 and AS 2502.26–.39.

<sup>9</sup> *Id.*

<sup>10</sup> See generally AS 2501.12 and AS 2502.40.

prior to the date of the auditor's report, to provide evidence about the reasonableness of the estimate.<sup>11</sup>

In general, the fair value standard, which is the most recent of the estimates standards, sets forth more detailed procedures for the common approaches described above. The level of detail within the fair value standard, however, varies.<sup>12</sup> For example, the fair value standard sets forth a number of different requirements for testing management's process but only a few general requirements for developing an independent estimate.<sup>13</sup>

The derivatives standard primarily addresses auditing derivatives. This standard also includes requirements for auditing the valuation of derivatives and investment securities, including valuations based on an investee's financial results, and testing assertions about securities based on management's intent and ability.<sup>14</sup>

### Existing Practice

The PCAOB's understanding of audit practice at both larger and smaller audit firms under existing PCAOB standards has been informed by, among other things, the collective experience of PCAOB staff, observations from oversight activities of the Board, enforcement actions of the SEC, comments received on the SCP and proposal, and discussions with the SAG and audit firms.

### Overview of Existing Practice

---

<sup>11</sup> See generally AS 2501.13 and AS 2502.41–.42.

<sup>12</sup> See generally AS 2502.26–.40.

<sup>13</sup> See generally AS 2502.40.

<sup>14</sup> See generally AS 2503.28–.34 and .56–.57.

The PCAOB has observed through its oversight activities that some audit firms' policies, procedures, and guidance ("methodologies") use approaches that apply certain of the basic procedures for auditing fair value measurements to other accounting estimates (e.g., evaluating the method used by management to develop estimates).<sup>15</sup> The PCAOB has also observed that when testing management's process, some auditors have developed expectations of certain significant assumptions as an additional consideration in evaluating the reasonableness of those assumptions.

Over the past few years, some audit firms have updated their methodologies, often in response to identified inspection deficiencies. For example, in the area of auditing the fair value of financial instruments, some firms have directed resources to implement more rigorous procedures to evaluate the process used by third-party pricing sources to determine the fair value of financial instruments.

The PCAOB has observed diversity in how audit firms use information obtained from third-party sources in auditing fair value measurements. Such third-party sources include pricing services and brokers or dealers, which provide pricing information related to the fair value of financial instruments.<sup>16</sup>

Some larger audit firms have implemented centralized approaches to developing independent estimates of the fair value of financial instruments. These firms may use centralized, national-level pricing desks or groups to assist in performing procedures

---

<sup>15</sup> Notably, most of those firms base their methodologies largely on the standards of the IAASB or the ASB, both of which have adopted one standard for auditing both fair value measurements and other accounting estimates.

<sup>16</sup> Another type of third-party source—specialists who develop independent estimates or assist in evaluating a company's estimate or the work of a company's specialist—is addressed separately in the Specialists Release. *See supra* note 2.

relating to testing the fair value of financial instruments. The level of information provided by these centralized groups to engagement teams varies. In some cases, the national-level pricing desk obtains pricing information from pricing services at the request of the engagement team. Additionally, national-level pricing desks may periodically provide information about a pricing service's controls and methodologies, and provide information on current market conditions for different types of securities to inform an engagement team's risk assessment. In other cases, the national-level pricing desk itself may develop estimates of fair value for certain types of securities, assist audit teams with evaluating the specific methods and assumptions related to a particular instrument, or evaluate differences between a company's price and price from a pricing source. Smaller audit firms that do not have a national pricing group may engage valuation specialists to perform some or all of these functions. Some smaller firms use a combination of external valuation specialists and internal pricing groups.

Commenters generally did not disagree with the description of current practice in the proposal. A few commenters pointed to additional areas where company and firm size and available resources can result in diverse audit approaches (e.g., impairment testing, estimates of environmental liabilities, and obtaining evidence related to complex transactions).

#### Observations from Audit Inspections

Through its oversight activities, the PCAOB has historically observed numerous deficiencies in auditing accounting estimates. Audit deficiencies have been observed in both larger and smaller audit firms.<sup>17</sup>

PCAOB inspections staff has observed audit deficiencies in issuer audits related to a variety of accounting estimates, including revenue-related estimates and reserves, the allowance for loan losses, the fair value of financial instruments, the valuation of assets and liabilities acquired in a business combination, goodwill and long-lived asset impairments, inventory valuation allowances, and equity-related transactions. Examples of such deficiencies include failures to (1) sufficiently test the accuracy and completeness of company data used in fair value measurements or other estimates, (2) evaluate the reasonableness of significant assumptions used by management, and (3) understand information provided by third-party pricing sources. In audits of brokers or dealers, deficiencies include failures to (1) obtain an understanding of the methods and assumptions internally developed or obtained by third parties that were used by the broker or dealer to determine fair value of securities, and (2) perform sufficient procedures to test valuation of securities. The observed deficiencies are frequently associated with, among other things, a failure to appropriately apply professional skepticism in auditing the estimates.<sup>18</sup>

---

<sup>17</sup> See, e.g., *Annual Report on the Interim Inspection Program Related to Audits of Brokers and Dealers*, PCAOB Release No. 2018-003 (Aug. 20, 2018); *PCAOB Staff Inspection Brief, Preview of Observations from 2016 Inspections of Auditors of Issuers* (Nov. 2017); and *Annual Report on the Interim Inspection Program Related to Audits of Brokers and Dealers*, PCAOB Release No. 2017-004 (Aug. 18, 2017). See also *Estimates Proposing Release* at 12, footnote 39.

<sup>18</sup> Audit deficiencies have also been observed by other regulators

More recently, there are some indications in PCAOB inspections of issuer audits that observed deficiencies in this area are decreasing, as compared to earlier years. Some audit firms have updated their audit practices in light of deficiencies identified through inspections. Not all firms have improved their practices in this area, however, and PCAOB inspections staff has continued to observe deficiencies similar to those described above. Inspection observations continue to raise concerns about auditors' application of professional skepticism, including addressing potential management bias, in auditing accounting estimates.

#### Observations from Enforcement Cases

Over the years, there have been a number of enforcement actions by the PCAOB and SEC for violations of PCAOB standards in auditing accounting estimates, demonstrating the importance of this aspect of the audit. Enforcement actions have been brought against larger and smaller firms, with domestic and international practices.

PCAOB enforcement cases related to auditing estimates have generally involved one or more of the following violations (1) failure to perform any procedures to determine the reasonableness of significant assumptions; (2) failure to test the relevance, sufficiency, and reliability of the data supporting the accounting estimates; (3) failure to perform a retrospective review of a significant accounting estimate to determine whether

---

internationally. For example, an International Forum of Independent Audit Regulators ("IFIAR") survey released in 2018 reported that accounting estimates was one of the audit areas with the highest rate and greatest number of findings. The most commonly observed deficiencies related to failures to assess the reasonableness of assumptions, including consideration of contrary or inconsistent evidence where applicable; sufficiently test the accuracy of data used; perform sufficient risk assessment procedures; take relevant variables into account; evaluate how management considered alternative assumptions; and adequately consider indicators of bias. *See IFIAR, Report on 2017 Survey of Inspection Findings* (Mar. 9, 2018), at 10 and B-6.

management's judgments and assumptions relating to the estimate indicated a possible bias; and (4) failure to adequately consider contradictory evidence or perform procedures to obtain corroboration for management representations regarding accounting estimates.<sup>19</sup>

Similarly, the SEC has brought Rule 102(e) proceedings against auditors for substantive failures in auditing accounting estimates, including failures to obtain sufficient appropriate audit evidence for significant accounting estimates in an entity's financial statements and failures to exercise due professional care, including professional skepticism, throughout the audit.<sup>20</sup> In some cases, the auditor (1) obtained little, if any, reliable or persuasive evidence with respect to management's adjustments to stale

---

<sup>19</sup> See, e.g., *Deloitte & Touche LLP*, PCAOB Release No. 105-2018-008 (May 23, 2018); *Tarvaran Askelson & Company, LLP, Eric Askelson, and Patrick Tarvaran*, PCAOB Release No. 105-2018-001 (Feb. 27, 2018); *David M. Burns, CPA*, PCAOB Release No. 105-2017-055 (Dec. 19, 2017); *Grant Thornton LLP*, PCAOB Release No. 105-2017-054 (Dec. 19, 2017); *Anthony Kam & Associates Limited, and Anthony KAM Hau Choi, CPA*, PCAOB Release No. 105-2017-043 (Corrected Copy) (Nov. 28, 2017); *BDO Auditores, S.L.P., Santiago Sañé Figueras, and José Ignacio Algás Fernández*, PCAOB Release No. 105-2017-039 (Sept. 26, 2017); *Kyle L. Tingle, CPA, LLC and Kyle L. Tingle, CPA*, PCAOB Release No. 105-2017-027 (May 24, 2017); *Wander Rodrigues Teles*, PCAOB Release No. 105-2017-007 (Mar. 20, 2017); *KAP Purwantono, Sungkoro & Surja, Roy Iman Wirahardja, and James Randall Leali*, PCAOB Release No. 105-2017-002 (Feb. 9, 2017); *HJ & Associates, LLC, S. Jeffrey Jones, CPA, Robert M. Jensen, CPA, and Charles D. Roe, CPA*, PCAOB Release No. 105-2017-001 (Jan. 24, 2017); *Arshak Davtyan, Inc. and Arshak Davtyan, CPA*, PCAOB Release No. 105-2016-053 (Dec. 20, 2016); *David C. Lee, CPA*, PCAOB Release No. 105-2016-052 (Dec. 20, 2016); *Arturo Vargas Arellano, CPC*, PCAOB Release No. 105-2016-045 (Dec. 5, 2016); and *Goldman Kurland and Mohidin, LLP and Ahmed Mohidin, CPA*, PCAOB Release No. 105-2016-027 (Sept. 13, 2016). See also *Estimates Proposing Release* at 13, footnote 41.

<sup>20</sup> See, e.g., *Paritz & Company, P.A., Lester S. Albert, CPA, and Brian A. Serotta, CPA*, SEC Accounting and Auditing Enforcement Release ("AAER") No. 3899 (Sept. 21, 2017); *KPMG LLP and John Riordan, CPA*, SEC AAER No. 3888 (Aug. 15, 2017); *William Joseph Kouser Jr., CPA, and Ryan James Dougherty, CPA*, AAER No. 3864 (Apr. 4, 2017); *Grassi & Co., CPAs, P.C.*, SEC AAER No. 3826 (Nov. 21, 2016). See also *Estimates Proposing Release* at 14, footnote 42.



appraised values; (2) failed to identify and address bias in management's estimates; or (3) failed to evaluate the results of audit procedures performed, including whether the evidence obtained supported or contradicted estimates in the financial statements.<sup>21</sup>

*Reasons to Improve Auditing Standards*

The Board believes that its standards for auditing accounting estimates, including fair value measurements, can be improved to provide better direction to auditors with respect to both the application of professional skepticism, including addressing potential management bias, and the use of third-party pricing information.

First, the differences in requirements among the three estimates standards suggest that revising PCAOB standards to set forth a more uniform, risk-based approach to auditing estimates can lead to improvements in auditing practices for responding to the risks of material misstatement in accounting estimates, whether due to error or fraud.

Second, because the subjective assumptions and measurement uncertainty of accounting estimates make them susceptible to management bias, the Board believes that PCAOB standards related to auditing accounting estimates will be improved by emphasizing the application of professional skepticism, including addressing potential management bias. Although the risk assessment standards and certain other PCAOB standards address professional skepticism and management bias, the estimates standards provide little or no specific direction on how to address those topics in the context of auditing accounting estimates.

---

<sup>21</sup> See, e.g., *Miller Energy Resources, Inc.*, Paul W. Boyd, CPA, David M. Hall, and Carlton W. Vogt, III, CPA, SEC AAER Nos. 3780 (June 7, 2016) and 3673 (Aug. 6, 2015); *Grant Thornton, LLP*, SEC AAER No. 3718 (Dec. 2, 2015).

Third, existing requirements do not provide specific direction about how to evaluate the relevance and reliability of pricing information from third parties. PCAOB standards should be improved by revising the requirements in this area to drive a level of work effort commensurate with both the risks of material misstatement in the valuation of financial instruments and the relevance and reliability of the evidence obtained.

The Board received 38 comment letters on the proposal. A number of commenters supported the Board's efforts to strengthen auditing practices and update its standards related to estimates and fair value measurements. For example, investor groups asserted that the proposal will strengthen auditor responsibilities, improve audit quality, and further investor protection. Other commenters pointed to better integration and alignment with the risk assessment standards, noting, for example, that a risk-based approach to auditing estimates will help to resolve the differences in requirements among the current standards. Some commenters supported combining the three existing standards into a single standard, for example, because it would make the requirements easier to navigate and comply with. Some commenters also expressed support for the incremental direction in the proposal on matters related to financial instruments, including the use of pricing information from third parties as audit evidence.

Some commenters on the proposal challenged the relevance of inspection experience to the Board's consideration of the new standard. For example, two commenters questioned whether the existence of audit deficiencies related to estimates warrant revision to the estimates standards. Another commenter suggested that development of standards should be based on areas where audit quality can be improved in order to protect the public interest, not just through areas that have been identified

during the inspection process. In contrast, other commenters expressed concern over continued audit deficiencies observed in this area and supported the development of the proposal. Another commenter argued that a lack of clarity in the estimates standards might be a contributing factor to the persistence of audit deficiencies associated with auditing estimates and fair value measurements.

The Board believes that a pattern of deficiencies over time raises questions about whether professional skepticism is being appropriately applied and about overall audit quality in this area, and supports the view that estimates are a challenging area of the audit. More specific direction should contribute to more consistent, risk-based execution and improved audit quality.

Some commenters questioned the need for the proposal citing, among other things, insufficient evidence that existing standards are deficient and the loss of certain content from the estimates standards that the commenters considered to be useful. One commenter argued that the standards for fair value measurements should be differentiated from the standards for other accounting estimates because the goals of the standards are fundamentally different.

The Board believes it is appropriate to apply a more uniform approach to the audit of accounting estimates, including fair value measurements, including by bringing the requirements together into a single standard. The estimates standards already reflect common approaches to substantive testing. While the level of detail varies across the three standards, these differences do not derive from differences in the assessed risks of material misstatement. The Board believes that a single standard will promote auditor performance that is more consistently responsive to risk. The new standard also includes

an appendix on valuation of financial instruments that provides specific direction in that area.

Some commenters asserted that the proposal would lead to unnecessary expansion of procedures and thus increased costs. For example, one of those commenters contended that the proposed requirements could affect the ability of smaller accounting firms to audit certain types of issuers. Another commenter cautioned against a one-size-fits-all audit approach, expressing concern about expecting the same level of rigor in developing accounting estimates from both the largest and smallest public companies. One commenter challenged the scalability of the proposal, arguing that auditors will assume that all listed factors and considerations will have to be addressed in every audit, and that nothing in the proposal directed the auditor to consider cost-benefit implications or whether further testing and analysis would meaningfully improve the auditor's ability to assess the reasonableness of an estimate. Other commenters, however, asserted that the standard is sufficiently scalable.

The Board believes that the new standard is well-tailored to address an increasingly significant and challenging area of the audit. The new standard is designed to be scalable because the necessary audit evidence depends on the corresponding risks of material misstatement. The new standard does not prescribe detailed procedures or the extent of procedures, beyond the requirement to respond to risk, including significant risk, and direction for applying the primary approaches to testing. Rather, it builds on the existing requirements of AS 2301 under which the auditor designs procedures that take into account the types of potential misstatements that could result from the identified

risks and the likelihood and magnitude of potential misstatement.<sup>22</sup> Specific risk factors associated with the estimates—for example, subjective assumptions, measurement uncertainty, or complex processes or methods<sup>23</sup>—affect the auditor's risk assessment and in turn, the required audit effort.

Aligning the new standard and related amendments with the risk assessment standards directs auditors to focus on estimates with greater risk of material misstatement. The new standard allows auditors to tailor their approach to best respond to identified risks and effectively obtain sufficient appropriate evidence. To the extent the new standard results in increased audit effort, that effort should be scaled in relation to the relevant risks, and any associated costs should be justified in light of the benefits of appropriate audit attention and the appropriate application of professional skepticism.

Some commenters also challenged the anticipated benefits of the proposal, arguing that additional audit work would not improve the quality of financial reporting, given the inherent uncertainty and subjectivity surrounding estimates.

The new standard and related amendments acknowledge that estimates have estimation uncertainty and that it affects the risks of material misstatement. Neither the Board nor auditors are responsible for placing limits on the range of estimation uncertainty. That uncertainty is a function of the estimate's measurement requirements under the applicable financial reporting framework, the economic phenomena affecting that estimate, and the fact that it involves assessments of future outcomes. Under the new

---

<sup>22</sup> AS 2301.09.

<sup>23</sup> See paragraph AS 2110.60A, as amended, for examples of specific risk factors.

standard and related amendments, the auditor will consider estimation uncertainty in assessing risk and performing procedures in response to risk, which involves evaluating whether the accounting estimates are reasonable in the circumstances and in conformity with the applicable financial reporting framework, as well as evaluating potential management bias in accounting estimates, and its effect on the financial statements. These responsibilities align with the auditor's overall responsibility for planning and performing financial statement audits.

Commenters generally acknowledged the Board's efforts to emphasize professional skepticism, including addressing management bias, in the proposal and provided varying views on related aspects of the proposal. Some commenters, for example, indicated that the proposal should place even more emphasis on the need to challenge management or the consideration of management bias, noting the existence of overly optimistic or skewed estimates in financial statements. One commenter advocated for more discussion within the standard of the various types of bias that can affect auditing estimates.

In contrast, other commenters asserted that the proposal overemphasized the need for professional skepticism, or had a negative tone that assumed a predisposition to management bias. One commenter pointed out other practices and requirements that, in the commenter's view, mitigate the risk of management bias, among them CEO and CFO certification, management reporting and auditor attestation on internal control over financial reporting, internal audit, and audit committee oversight. Some of these commenters expressed concern that the emphasis on professional skepticism would lead to unnecessary expansion of audit procedures.

A few commenters also argued that management bias is inherent in accounting estimates and cannot be eliminated. One of the commenters added that, for those reasons, the proposed requirements addressing management bias should not apply to estimates made pursuant to the new accounting standard on credit losses.<sup>24</sup> Another commenter suggested that the proposal should differentiate between limitations that an auditor can address (e.g., analytical ability), those that can be partially addressed (e.g., some features of management bias), and those that cannot be addressed (e.g., time constraints, limits on available information).

The Board acknowledges that given the subjective assumptions and measurement uncertainty inherent in many estimates, bias cannot be eliminated entirely. However, a standard that reinforces the importance of professional skepticism, including addressing the potential for management bias, when auditing estimates will remind auditors of their existing responsibilities to evaluate contradictory evidence and to address the effects of bias on the financial statements.

Some commenters suggested that the standard include guidance on identifying and testing relevant controls over accounting estimates. For example, one commenter suggested guidance related to auditor consideration of management's controls over selection and supervision of a company specialist. Another commenter suggested additional guidance on identification and testing of relevant controls, and identification

---

<sup>24</sup> See Financial Accounting Standards Board ("FASB") Accounting Standards Update No. 2016-13, *Financial Instruments—Credit Losses* (Topic 326): *Measurement of Credit Losses on Financial Instruments* (June 2016).

and response to risks of material misstatement due to fraud in relation to auditing estimates.

The auditor's responsibilities for testing controls are already addressed in AS 2110, AS 2301, and AS 2201, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements*. These requirements apply to controls over accounting estimates. Those responsibilities are not altered by the new standard and related amendments. However, after considering the comments, an amendment was made to provide additional direction on testing controls related to auditing estimates.

#### Overview of Final Rules

The Board has adopted a single standard to replace the accounting estimates standard, the fair value standard, and the derivatives standard. As described in more detail below, AS 2501 (Revised) includes a special topics appendix that addresses certain matters relevant to auditing the fair value of financial instruments. In addition, several PCAOB auditing standards will be amended to align them with the new standard on auditing accounting estimates. The new standard and related amendments will make the following changes to existing requirements:

- Provide direction to prompt auditors to devote greater attention to addressing potential management bias in accounting estimates, as part of applying professional skepticism. In this regard, the new standard and related amendments will:
  - Amend AS 2110 to require a discussion among the key engagement team members of how the financial statements



could be manipulated through management bias in accounting estimates in significant accounts and disclosures.

- Emphasize certain key requirements to focus auditors on their obligations, when evaluating audit results, to exercise professional skepticism, including evaluating whether management bias exists.
- Remind auditors that audit evidence includes both information that supports and corroborates the company's assertions regarding the financial statements and information that contradicts such assertions.
- Require the auditor to identify significant assumptions used by the company and describe matters the auditor should take into account when identifying those assumptions.
- Provide examples of significant assumptions (important to the recognition or measurement of the accounting estimate), such as assumptions that are susceptible to manipulation or bias.
- Emphasize requirements for the auditor to evaluate whether the company has a reasonable basis for the significant assumptions used and, when applicable, for its selection of assumptions from a range of potential assumptions.
- Explicitly require the auditor, when developing an independent expectation of an accounting estimate, to have a reasonable basis for the assumptions and method he or she uses.

- Require that the auditor obtain an understanding of management's analysis of critical accounting estimates and take that understanding into account when evaluating the reasonableness of significant assumptions and potential management bias.
- Recast certain existing requirements using terminology that encourages maintaining a skeptical mindset, such as "evaluate" and "compare" instead of "corroborate."
- Strengthen requirements for evaluating whether data was appropriately used by a company that build on requirements in the fair value standard, and include a new requirement for evaluating whether a company's change in the source of data is appropriate.
- Clarify the auditor's responsibilities for evaluating data that build on the existing requirements in AS 1105.
- Amend AS 2401, *Consideration of Fraud in a Financial Statement Audit*, to clarify the auditor's responsibilities when performing a retrospective review of accounting estimates and align them with the requirements in the new standard.
- Extend certain key requirements in the fair value standard to other accounting estimates in significant accounts and disclosures to reflect a more uniform approach to substantive testing. For estimates not currently subject to the fair value standard, this will:

- Refine the three substantive approaches common to the accounting estimates standard to include more specificity, similar to the fair value standard.
- Describe the auditor's responsibilities for testing the individual elements of the company's process used to develop the estimate (i.e., methods, data, and significant assumptions).
- Set forth express requirements for the auditor to evaluate the company's methods for developing the estimate, including whether the methods are:
  - In conformity with the requirements of the applicable financial reporting framework; and
  - Appropriate for the nature of the related account or disclosure, taking into account the auditor's understanding of the company and its environment.
- Require the auditor to take into account certain factors in determining whether significant assumptions that are based on the company's intent and ability to carry out a particular course of action are reasonable.
- Further integrate requirements with the risk assessment standards to focus auditors on estimates with greater risk of material misstatement. The new standard and related amendments incorporate specific requirements relating to accounting estimates into AS 2110 and AS 2301 to inform the

necessary procedures for auditing accounting estimates. Specifically, the new standard and related amendments would:

- Amend AS 2110 to include risk factors specific to identifying significant accounts and disclosures involving accounting estimates.
- Align the scope of the new standard with AS 2110 to apply to accounting estimates in significant accounts and disclosures.
- Amend AS 2110 to set forth requirements for obtaining an understanding of the company's process for determining accounting estimates.
- Require auditors to respond to significantly differing risks of material misstatement in the components of accounting estimates, consistent with AS 2110.
- Remind auditors of their responsibility to evaluate conformity with the applicable financial reporting framework, reasonableness, and potential management bias and its effect on the financial statements when responding to the risks of material misstatement in accounting estimates in significant accounts and disclosures.
- Require the auditor, when identifying significant assumptions, to take into account the nature of the accounting estimate, including related risk factors, the applicable financial reporting

framework, and the auditor's understanding of the company's process for developing the estimate.

- Include matters relevant to identifying and assessing risks of material misstatement related to the fair value of financial instruments.
- Add a note in AS 2301 to emphasize that performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.
- Add a note to AS 2301 providing that for certain estimates involving complex models or processes, it might be impossible to design effective substantive tests that, by themselves, would provide sufficient appropriate evidence regarding the assertions.
- Make other updates to the requirements for auditing accounting estimates, including:
  - Update the description of what constitutes an accounting estimate to encompass the general characteristics of the variety of accounting estimates, including fair value measurements, in financial statements.

- Set forth specific requirements for evaluating data and pricing information used by the company or the auditor that build on the existing requirements in AS 1105.
- Establish more specific requirements for developing an independent expectation that vary depending on the source of data, assumptions, or methods used by the auditor and build on AS 2810 to provide a requirement when developing an independent expectation as a range.
- Relocate requirements in the derivatives standard for obtaining audit evidence when the valuation of investments is based on investee results as an appendix to AS 1105.
- Provide specific requirements and direction to address auditing the fair value of financial instruments, including:
  - Establish requirements to determine whether pricing information obtained from third parties, such as pricing services and brokers or dealers, provides sufficient appropriate evidence, including:
    - Focus auditors on the relevance and reliability of pricing information from third-party sources,<sup>25</sup> regardless of whether the pricing information was obtained by the company or the auditor.

---

<sup>25</sup> The requirements in this area focus primarily on pricing information from pricing services and brokers or dealers, but also cover pricing information obtained from other third-party pricing sources, such as exchanges and publishers of exchange prices.

- Establish factors that affect relevance and reliability of pricing information obtained from a pricing service.
- Require the auditor to perform additional audit procedures to evaluate the process used by the pricing service when fair values are based on transactions of similar financial instruments.
- Require the auditor to perform additional procedures on pricing information obtained from a pricing service when no recent transactions have occurred for either the financial instrument being valued or similar financial instruments.
- Establish conditions under which less information is needed about particular methods and inputs of individual pricing services in circumstances where prices are obtained from multiple pricing services.
- Establish factors that affect the relevance and reliability of quotes from brokers or dealers.
- Require the auditor to understand, if applicable, how unobservable inputs were determined and evaluate the reasonableness of unobservable inputs.

The Board seeks to improve the quality of auditing in this area and believes these changes strengthen and enhance the requirements for auditing accounting estimates.

Commenters largely supported a single, more uniform standard to address auditing accounting estimates, including fair value measurements. For example, one

commenter observed that the existence of three related standards in this area made it difficult for auditors to navigate to be certain that all requirements were met. A few commenters, however, asserted that fair value measurements and derivatives are unique and involve different functions. One of those commenters also expressed concern about applying audit procedures in the fair value standard to other accounting estimates. The new standard takes into account the unique aspects of auditing fair value measurements, such as the use of observable and unobservable inputs. Further, the new standard includes a separate appendix that addresses auditing the fair value of financial instruments.

Some commenters requested supplemental or implementation guidance for various requirements presented in the proposed standard and the related amendments. Several commenters also advocated for retaining portions of the derivatives standard that, in their view, provided helpful guidance. Two commenters suggested that the Board consider issuing guidance specific to the audits of brokers and dealers.<sup>26</sup>

A few commenters observed that the proposal did not explicitly address how advances in technology, including use of data analytics, could affect audit procedures. In its consideration of the new standard and related amendments, the Board is mindful of the significant advances in technology that have occurred in recent years, including increased use of data analysis tools and emerging technologies. An increased use of these technology-based tools, together with future developments in the use of data and

---

<sup>26</sup> See below for further discussion of the comments received on specific requirements and additional guidance on the implementation of the requirements in the new standard.



technology, could have a fundamental impact on the audit process. The Board is actively exploring these potential impacts through ongoing staff research and outreach.<sup>27</sup>

In the context of this rulemaking, the Board considered how changes in technology could affect the approaches to auditing accounting estimates. The Board believes that the new standard and related amendments are sufficiently principles-based and flexible to accommodate continued advances in the use of data and technology by both companies and auditors. The Board will continue to monitor advances in this area and any implications related to the standard.<sup>28</sup>

Some commenters advocated for greater alignment of the proposal with the IAASB's exposure draft on International Standard on Auditing 540 ("ISA 540")<sup>29</sup> to achieve greater consistency in practice, and suggested continued coordination of efforts in this area. The Board considered the IAASB's ISA 540 project while developing the new standard. While there is some commonality between the new standard and ISA 540 Revised, the new standard is aligned with the Board's risk assessment standards and designed for audits of issuers and SEC-registered brokers and dealers.

---

<sup>27</sup> For example, the staff is currently researching the effects on the audit of, among other things, data analytics, artificial intelligence, and distributed ledger technology, assisted by a task force of the SAG. *See* Data and Technology Task Force overview page, available on the Board's website.

<sup>28</sup> *See* PCAOB, *Changes in Use of Data and Technology in the Conduct of Audits*, available at <https://pcaobus.org/Standards/research-standard-setting-projects/Pages/data-technology.aspx>.

<sup>29</sup> *See* IAASB Exposure Draft, Proposed ISA 540 (Revised), *Auditing Accounting Estimates and Related Disclosures*, (Apr. 20, 2017). In October 2018, the IAASB released the final standard ("ISA 540 Revised").

Following is a discussion of significant comments received on the proposal along with revisions made by the Board after consideration of those comments and additional guidance on the implementation of the requirements of the new standard. The subsections also include a comparison of the final requirements with the analogous requirements of the following standards issued by the IAASB and the Auditing Standards Board ("ASB") of the American Institute of Certified Public Accountants:

- ISA 540 Revised, adopted by the IAASB; and
- AU-C Section 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* ("AU-C Section 540"), adopted by the ASB of the American Institute of Certified Public Accountants.

The comparison does not necessarily represent the views of the IAASB or ASB regarding the interpretation of their standards. Additionally, the information presented in the subsections does not include the application and explanatory material in the IAASB standards or ASB standards.<sup>30</sup>

#### AS 2501 (Revised)

##### *Scope of the Standard*

*See paragraphs .01–.02*

---

<sup>30</sup> Paragraph A59 of ISA 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing*, and paragraph .A64 of AU-C Section 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with Generally Accepted Auditing Standards*, indicate that the related application and other explanatory material "does not in itself impose a requirement" but "is relevant to the proper application of the requirements" of the respective standards.

As in the proposal, the new standard applies when auditing accounting estimates in significant accounts and disclosures. Commenters on this topic supported the scope set forth in the standard.

#### Comparison with Standards of Other Standard Setters

The scope and nature of accounting estimates described in ISA 540 Revised, AU-C Section 540, and the new standard share some common concepts. However, the accounting estimates covered by the new standard are expressly linked to significant accounts and disclosures.

#### Objective of the Standard

*See paragraph .03*

In the proposal, the standard included a detailed objective expressly addressing the fundamental aspects of auditing accounting estimates under the estimates standards: testing and evaluating whether accounting estimates (1) are reasonable in the circumstances, (2) have been accounted for and disclosed in conformity with the applicable financial reporting framework, and (3) are free from bias that results in material misstatement.

Commenters asserted that including the phrase "free from bias that results in material misstatement" as a distinct element of the audit objective was not clear, could imply absolute assurance, or could be interpreted as a broader obligation than what is required under the existing standards. Some commenters recommended deleting the reference to bias from the objective, and others suggested revisions in order to clarify the intent of including the reference to bias in the objective. One commenter suggested that the objective should be for auditors to determine whether accounting estimates and

disclosures are reasonable in the context of the applicable financial reporting framework, which in the commenter's view would be broader than the proposed objective.

After consideration of comments, the Board has (1) revised the objective to describe the overall purpose of the procedures required under the new standard and other relevant procedures under the risk assessment standards (specifically, to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in financial statements);<sup>31</sup> (2) relocated the description of more specific auditor responsibilities—evaluating conformity with the applicable financial reporting framework, reasonableness, and potential management bias—from the objective to the requirements;<sup>32</sup> and (3) provided additional context in the requirements to enhance clarity, including citing corresponding requirements in other PCAOB standards. In addition, for conciseness, the new standard and amendments have been revised to consistently use the phrase "sufficient appropriate evidence," which has the same meaning in PCAOB standards as the phrase "sufficient appropriate audit evidence."

As discussed in more detail below, the revised objective links more closely with the requirements of the risk assessment standards<sup>33</sup> and continues to focus auditors on their existing obligations to evaluate potential management bias in the context of auditing accounting estimates.

---

<sup>31</sup> This approach to formulating an objective is similar to the approach in other PCAOB standards. *See, e.g.,* paragraph .02 of AS 2410, *Related Parties*.

<sup>32</sup> *See* first note to paragraph .05 of the new standard.

<sup>33</sup> *See supra* note 3. The risk assessment standards set forth requirements relating to the auditor's assessment of, and response to, the risks of material misstatement in the financial statements.

Comparison with Standards of Other Standard Setters

The objective of ISA 540 Revised is to obtain sufficient appropriate audit evidence about whether accounting estimates and related disclosures in the financial statements are reasonable in the context of the applicable financial reporting framework. The objective of AU-C Section 540 is substantially the same but also includes whether related disclosures in the financial statements are adequate.

*Identifying and Assessing Risks of Material Misstatement*

*See paragraph .04*

The proposed standard discussed how the auditor's responsibilities regarding the process of identifying and assessing risks of material misstatement, as set forth in AS 2110 apply to auditing accounting estimates. The proposed requirement provided that, among other things, identifying and assessing risks of material misstatement related to accounting estimates includes determining whether the components of estimates in significant accounts and disclosures are subject to significantly differing risks, and which estimates are associated with significant risks.<sup>34</sup>

One commenter asserted that the term "components" should be defined and another commenter observed that "components of estimates" could be interpreted to mean inputs used to develop the estimate, or individual accounts that roll up into a financial statement line item.

AS 2501 (Revised) retains paragraph .04 as proposed, including the reference to components of estimates. This reference is not new and derives from the concept in the

---

<sup>34</sup>

*See AS 2110.70–.71.*

risk assessment standards that components of a potential significant account or disclosure might be subject to significantly differing risks<sup>35</sup> which would need to be taken into account in designing and performing audit procedures. For example, a valuation allowance in the company's financial statements may include a general component and a specific component with differing risks.

#### Comparison with Standards of Other Standard Setters

In identifying and assessing the risks of material misstatement, ISA 540 Revised requires the auditor to separately assess inherent risk and control risk. The auditor is required to take into account, in assessing inherent risk (a) the degree to which the accounting estimate is subject to estimation uncertainty, and (b) the degree to which (i) the selection and application of the method, assumptions and data in making the accounting estimate; or (ii) the selection of management's point estimate and related disclosures for inclusion in the financial statements, are affected by complexity, subjectivity, or other inherent risk factors.<sup>36</sup>

AU-C Section 540 requires the auditor to evaluate the degree of estimation uncertainty associated with an accounting estimate in identifying and assessing the risks of material misstatement.

#### *Responding to the Risks of Material Misstatement*

*See paragraphs.05–.07*

---

<sup>35</sup> See AS 2110.63.

<sup>36</sup> ISA 540 Revised and AU-C Section 540 also include requirements related to identification of significant risks related to accounting estimates. AS 2110 sets forth requirements for identifying significant risks under PCAOB standards.

The proposed standard explained how the basic requirement in AS 2301 to respond to the risks of material misstatement applies when performing substantive procedures for accounting estimates in significant accounts and disclosures. Additionally, the proposal provided that responding to risks of material misstatement in the context of accounting estimates involves, among other things, (1) testing whether estimates in significant accounts and disclosures are in conformity with the applicable financial reporting framework, (2) responding to significantly differing risks of material misstatement in the components of an accounting estimate, and (3) applying professional skepticism in gathering and evaluating audit evidence, particularly when responding to fraud risks. The proposed standard also reminded auditors that, as the assessed risk of material misstatement increases, the evidence that the auditor should obtain also increases. The evidence provided by substantive procedures depends on the mix of the nature, timing, and extent of those procedures.

Commenters provided views on various aspects of the proposed requirements. One commenter asked for clarification on the role of professional skepticism in relation to fraud risks and management bias. Another commenter advocated for a framework against which auditor skepticism can be evaluated. Other commenters suggested including requirements to evaluate both corroborative and contradictory audit evidence similar to AS 1105.02. A few commenters also requested clarification of how substantive procedures related to accounting estimates can be performed at an interim date.

The new standard retains the discussion of the auditor's responsibilities for responding to risks associated with estimates substantially as proposed. The statements in

the new standard related to responding to the risks of material misstatement are rooted in the Board's risk assessment standards and drew no critical comments.

The new standard reflects two changes from the proposal. As noted above, the description of more specific auditor responsibilities—evaluating conformity with the applicable accounting framework, reasonableness, and potential management bias—has been relocated from the objective to paragraph .05 to provide additional context for responding to risks of material misstatement. Specifically, the new standard states that responding to risks of material misstatement involves evaluating whether the accounting estimates are in conformity with the applicable financial reporting framework and reasonable in the circumstances, as well as evaluating potential management bias in accounting estimates and its effect on the financial statements. Notably, the added language regarding potential management bias is aligned with paragraphs AS 2810.24–.27 to remind auditors of existing requirements.

Additionally, the new standard now includes a reference to AS 1105.02, as suggested by some commenters, reminding auditors that audit evidence consists of both information that supports and corroborates management's assertions regarding the financial statements and information that contradicts such assertions.

With respect to the comments regarding guidance on professional skepticism and performing procedures at interim dates, other PCAOB standards already address the auditor's responsibilities in those areas, and the new standard does not change that direction with respect to auditing estimates. For example, paragraphs .07–.09 of AS 1015, *Due Professional Care in the Performance of Work*, paragraph .13 of AS 2401, and AS 2301.07 address the appropriate application of professional skepticism, and AS 2301.43–



.46 discusses the auditor's responsibilities when performing substantive procedures at an interim date. Those standards apply when auditing accounting estimates.

#### Scalability of the Standard

In response to questions in the proposal, commenters expressed mixed views on the scalability of the proposed requirements. Some commenters indicated that the proposed requirements were sufficiently scalable, while others identified challenges in scaling the auditor's response to identified risks in accounting estimates and requested additional guidance. For example, some commenters opined that it was not clear how auditors would tailor their response to an estimate that represented a significant risk of material misstatement compared with a lower risk estimate. One commenter advocated for further guidance to address situations where an estimate is deemed to have a low inherent risk. Another commenter indicated that it is important to recognize that the amount of evidence may not necessarily increase, but the persuasiveness and sufficiency of the evidence should increase.

The new standard is designed to be scalable because the necessary audit evidence depends on the corresponding risk of material misstatement. The standard does not prescribe detailed procedures or the extent of procedures, beyond the requirement to respond to the risk, including significant risk, and the direction for applying the primary approaches for testing. Rather, it builds on the requirements of AS 2301 to design procedures that take into account the types of potential misstatements that could result from the identified risks and the likelihood and magnitude of potential misstatement.<sup>37</sup>

---

<sup>37</sup>

AS 2301.09.

Specific risk factors associated with the estimates—for example, subjective assumptions, measurement uncertainty, or complex processes or methods<sup>38</sup>—would affect the auditor's risk assessment and in turn, the required audit effort. For example:

- Testing a simple calculation of depreciation expense, including evaluating remaining useful lives, for a group of assets of the same type with similar usage and condition would generally require less audit effort than testing asset retirement obligations that involve significant assumptions about costs not yet incurred based on estimation of the probability of future events.
- In testing the valuation of assets acquired and liabilities assumed in a business combination, more audit effort would need to be directed to assets and liabilities whose valuation involves more subjective assumptions, such as identifiable intangible assets and contingent consideration, than to assets with readily determinable values.

Additionally, the new standard echoes language from AS 2301.37 in stating that, as the assessed risk of material misstatement increases, the evidence from substantive procedures that the auditor should obtain also increases. Consistent with AS 2301, for an individual accounting estimate, different combinations of the nature, timing, and extent of testing might provide sufficient appropriate evidence to respond to the assessed risk of material misstatement for the relevant assertion.

#### Selection of Approaches

---

<sup>38</sup>

*See AS 2110.60A, as amended, for examples of specific risk factors.*

The proposed standard retained the requirement to test accounting estimates using one or a combination of three basic approaches from the estimates standards: (1) testing the company's process, (2) developing an independent expectation, and (3) evaluating audit evidence from events or transactions occurring after the measurement date. The proposed standard also included a note reminding auditors that their understanding of the process the company used to develop the estimate, along with results of tests of relevant controls, should inform the auditor's decisions about the approach he or she takes to auditing an estimate.

Several commenters expressed support for retaining the three common approaches, as set forth in the proposal. Other commenters indicated that the proposal should emphasize that testing the company's process may not always be the best audit approach; with one commenter noting that the proposed requirement may lead auditors to test management's process substantively, regardless of whether another approach will provide the same or more persuasive audit evidence. Two commenters stressed the importance of developing an independent expectation and suggested this approach be selected in addition to testing the company's process. None of these commenters, however, suggested that the selection of substantive approaches should be limited.

Some commenters sought further direction on how the auditor would obtain sufficient evidence when using a combination of approaches, with some commenters asserting that, for example, the proposed requirement might result in inconsistent application or auditors unnecessarily performing all procedures under each approach. One commenter asked the Board to clarify whether documentation of a specific testing approach is expected.

Some commenters also requested guidance on the application of specific testing approaches. For instance, one commenter suggested that the Board consider directing auditors to always evaluate audit evidence from events or transactions occurring after the measurement date related to the accounting estimate, as, in their view, there would be limited circumstances in which this approach would not provide appropriate audit evidence to determine whether accounting estimates are reasonable. Another commenter added that events occurring after the measurement date may effectively eliminate estimation uncertainty, which affects risk assessment and the audit response related to valuation. This commenter suggested the proposal clarify the extent of additional procedures required, if any, when such events are considered and tested.

One commenter suggested more guidance be provided about how an auditor's understanding of management's process affects the auditor's planned response to assessed risk in accordance with AS 2301. This commenter also observed that the note to paragraph .07 may be read to mean that relevant controls are expected to be tested in all audits and suggested a footnote reference to relevant requirements of AS 2301.

The new standard retains the requirements for testing accounting estimates substantially as proposed, allowing the auditor to determine the approach or combination of approaches appropriate for obtaining sufficient appropriate evidence to support a conclusion about the particular accounting estimate being audited. The new standard takes into account that accounting estimates vary in nature and in how they are developed. Therefore, mandating a particular testing approach may not be feasible or practical in the circumstances. For example, in some cases, data and significant assumptions underlying the estimate may be largely based on a company's internal

information (e.g., sales projections or employee data), or the estimate may be generated using a customized company-specific model. In those situations, the auditor may not have a reasonable alternative to testing the company's process. Similarly, there may not be any events or transactions occurring after the measurement date related to certain estimates (e.g., the outcome of a contingent liability might not be known for a number of years). Rather than imposing limits on the selection of approaches, the new standard describes the auditor's responsibilities for appropriately applying the selected approach, or combination of approaches, to obtain sufficient appropriate evidence and performing an appropriate evaluation of the evidence obtained.

As under the estimates standards, the new standard allows for the auditor to use a combination of approaches to test an estimate. For example, some estimates consist of multiple components (e.g., valuation allowances) and the auditor may vary the approaches used for the individual components. The auditor may also choose to develop an independent expectation of a significant assumption used by the company in conjunction with testing the company's process for developing the estimate. Whether using a combination of approaches or a single approach, the auditor is required to have a reasonable basis for using alternative methods or deriving his or her own assumptions, as discussed in more detail below. Similarly, when using information produced by the company as audit evidence, the auditor is required to evaluate whether that information is sufficient and appropriate for the purposes of the audit, regardless of the approach the auditor uses to test the estimate.<sup>39</sup>

---

<sup>39</sup>*See AS 1105.10.*

The new standard also carries forward the point from the accounting estimate standard that the auditor's understanding of the company's process for developing the estimate, and, if relevant controls are tested, the results of those tests, informs the auditor's decision about which approach or approaches to take. AS 2301 describes the auditor's responsibilities for testing controls in a financial statement audit. The new standard does not change those responsibilities, including the circumstances under which the auditor is required to test controls. Rather, the standard emphasizes that the results of the auditor's tests of controls can affect the nature, timing and extent of planned substantive procedures. Further, the auditor's understanding of the company's process related to an estimate can provide insight into the nature and extent of available audit evidence, and thus inform the auditor's selection of approaches.

Lastly, the new standard does not set forth requirements for audit documentation. The auditor's responsibilities with respect to audit documentation are addressed in AS 1215, *Audit Documentation*. Accordingly, audit documentation relevant to selection of approaches should be evident to an experienced auditor, having no previous connection with the engagement.<sup>40</sup>

#### Comparison with Standards of Other Standard Setters

ISA 540 Revised requires the auditor's procedures to be responsive to the assessed risks of material misstatement at the assertion level, considering the reasons for the

---

<sup>40</sup>

See AS 1215.06.

assessment given to those risks, and include one or more of the three approaches to substantive testing (similar to the new standard).<sup>41</sup>

ISA 540 Revised also includes a requirement for the auditor to take into account that the higher the assessed risk of material misstatement, the more persuasive the audit evidence needs to be. The auditor is required to design and perform further audit procedures in a manner that is not biased towards obtaining audit evidence that may be corroborative or towards excluding audit evidence that may be contradictory.

AU-C Section 540 requires the auditor to determine whether management has appropriately applied the requirements of the applicable financial reporting framework relevant to the accounting estimate. In responding to the assessed risks of material misstatement, AU-C Section 540 also requires the auditor to undertake one or more of the three approaches discussed above, as well as providing an approach to perform a combination of tests of controls over the estimate along with substantive procedures.

*Testing the Company's Process Used to Develop the Accounting Estimate*

*See paragraph .09*

The proposed standard included an introductory statement explaining the purpose of and steps involved in testing the company's process. Specifically, the standard explained that testing the company's process involves performing procedures to test and evaluate the methods, data, and significant assumptions used to develop the company's estimate in order to form a conclusion about whether the estimate is reasonable in the

---

<sup>41</sup> ISA 540 Revised also includes requirements for tests of controls. AS 2301 sets forth requirements for tests of controls in financial statement audits under PCAOB standards.

circumstances, in conformity with the applicable financial reporting framework, and free from bias that results in material misstatement.

Similar to the comments received on the proposed objective, some commenters expressed concerns about the phrase "free from bias that results in material misstatement" when describing the auditor's responsibilities in this area. One commenter also asked whether these requirements would apply to assumptions, models, and data provided by a company specialist. Another commenter sought clarification on the meaning of the terms "test," "data," and "assumptions."

As with the objective of the standard, paragraph .09 of the new standard was revised to describe an overarching concept for testing the company's process—that is, to form a conclusion about whether the estimate is properly accounted for and disclosed in financial statements. These revisions are responsive to comments and link the auditor's responsibilities more closely to the requirements of the Board's risk assessment standards.

As discussed in more detail below, the new standard directs the auditor to look to the requirements in Appendix A of AS 1105<sup>42</sup> for the auditor's responsibilities with respect to using the work of a company's specialist in the audit. This direction has been modified from the proposal to align with changes to the Specialists Release.

Finally, the meaning of the terms "test," "data," and "assumptions" in the new standard is consistent with the meaning of these terms used in the estimates standards and other PCAOB standards.

#### Comparison with Standards of Other Standard Setters

---

<sup>42</sup> The auditor's responsibilities with respect to using the work of a company specialist are presented as Appendix A of AS 1105. *See supra* note 2.



ISA 540 Revised provides that, as part of testing how management made the accounting estimate, the auditor is required to perform procedures to obtain sufficient appropriate audit evidence regarding the risks of material misstatement relating to (a) selection and application of the methods, significant assumptions and the data used by management in making the accounting estimate, and (b) how management selected the point estimate and developed related disclosures about estimation uncertainty.<sup>43</sup>

AU-C Section 540 provides that as part of testing how management made the accounting estimate and the data on which it is based, the auditor should evaluate whether the method of measurement used is appropriate in the circumstances, the assumptions used by management are reasonable in light of the measurement objectives of the applicable financial reporting framework, and the data on which the estimate is based is sufficiently reliable for the auditor's purposes.

#### Evaluating the Company's Methods

*See paragraphs.10–.11*

The proposed standard provided that the auditor should evaluate whether the methods used by the company are (1) in conformity with the applicable financial reporting framework, including evaluating whether the data and significant assumptions are appropriately applied; and (2) appropriate for the nature of the related account or

---

<sup>43</sup> The Board's risk assessment standards address the auditor's responsibilities for responding to risks of material misstatement and obtaining sufficient appropriate evidence.

disclosure and the company's business, industry, and environment. The proposed requirements were similar to certain requirements of the fair value standard.<sup>44</sup>

A number of commenters expressed concerns about the requirement to evaluate whether the company's methods are appropriate for the company's "business, industry, and environment" because in their view, the requirement seemed to suggest all companies within a particular industry use, or should use, the same method. Two commenters also suggested adding specific requirements—to evaluate models used by the company and test the mathematical accuracy of the calculations used by the company to translate its assumptions into the accounting estimate. One commenter sought clarification on the intent of the requirement to evaluate whether the data and significant assumptions are appropriately applied under the applicable financial reporting framework.

The new standard retains substantially as proposed the requirement to evaluate whether the methods used by the company are in conformity with the applicable financial reporting framework, including evaluating whether the data is appropriately used and significant assumptions are appropriately applied under the framework. The applicable financial reporting framework may prescribe a specific method to develop an estimate or allow for alternative methods, or provide guidance on how to apply the method, including guidance on the selection or use of assumptions or data. Evaluating whether the company's method is in conformity with the financial reporting framework involves evaluating whether the data is appropriately used and significant assumptions are appropriately applied by the method, which, if applicable, would include testing the mathematical accuracy of the calculations under the method.

---

<sup>44</sup>*See AS 2502.15 and .18.*

The methods used by the company may involve the use of a model (e.g., expected future cash flows). The new standard does not prescribe specific procedures for testing models, as suggested by one commenter.<sup>45</sup> The Board believes that requirements specific to models are not necessary because evaluating the method, as discussed above, includes consideration of models to the extent necessary to reach a conclusion on the appropriateness of the method. Under the new standard, the necessary audit procedures to evaluate the method used by the company (which, as appropriate, include models involved in the method) are commensurate with the assessed risks associated with the estimate. For example, the risks associated with a method that uses a commercially available valuation model may relate to whether the model is appropriate for the related estimate under the applicable financial reporting framework, whereas the risks associated with a method that uses an internally-developed company model may include additional risks associated with how the model was developed. In this example, the internally-developed model scenario would require greater audit effort to respond to the broader range of risks, as compared to the commercially available model scenario. In either case, the auditor would evaluate whether the method was used appropriately, including whether adjustments, if any, to the output of the model were appropriate.

---

<sup>45</sup> This commenter advocated for the approach taken by the IAASB regarding models. ISA 540 Revised requires that, when management's application of the method involves complex modeling, the auditor's procedures address whether judgments have been applied consistently and, when applicable, whether (1) the design of the model meets the measurement objective of framework, is appropriate in the circumstances, and changes from the prior period's model are appropriate in the circumstances; and (2) adjustments to the output of the model are consistent with the measurement objective and are appropriate in circumstances.

After consideration of comments, the requirement regarding evaluating the appropriateness of the method was revised to remove the reference to the company's business and industry. Under the new standard, the auditor is required to evaluate whether the company's method is appropriate for the nature of the related account or disclosure, taking into account the auditor's understanding of the company and its environment. This revised requirement is consistent with the risk assessment standards because the auditor's evaluation of the method (a substantive procedure) is informed by the auditor's understanding of the company and its environment (obtained through the auditor's risk assessment procedures).<sup>46</sup> Notably, part of the auditor's procedures for obtaining an understanding of the company and its environment include obtaining an understanding of relevant industry, regulatory, and other external factors, and evaluating the company's selection and application of accounting principles.<sup>47</sup>

The proposed standard also addressed circumstances in which a company has changed its method for developing an accounting estimate by requiring the auditor to determine the reasons for and evaluate the appropriateness of such change.

One commenter asserted that it would be more appropriate to require the auditor to evaluate whether the company's reasons for making the change are appropriate. This commenter also sought clarification on what constitutes a change in method and on the auditor's responsibility when the company has not made a determination about whether

---

<sup>46</sup> Additionally, AS 2301.05d requires the auditor to evaluate whether the company's selection and application of significant accounting principles, particularly those related to subjective measurements and complex transactions, are indicative of bias that could lead to material misstatement of the financial statements.

<sup>47</sup> AS 2110.09 and .12–.13.

different methods result in significantly different estimates. Another commenter expressed concern that, because of a lack of clarity about the definition of "method" and what constitutes a change, the proposed requirement could result in potentially onerous documentation necessary to support changes to methods. Finally, one commenter suggested adding a requirement for the auditor to evaluate whether the company failed to revise its method to recognize changes in facts and circumstances.

The new standard retains as proposed the requirements for the auditor to (1) determine the reasons for changes to the method used by the company and evaluate the appropriateness of such change, and (2) evaluate the appropriateness of methods selected by the company in circumstances where the company has determined that different methods could result in significantly different estimates. The requirements in the new standard are similar to those in the fair value standard<sup>48</sup> and consistent with the auditor's responsibilities to obtain an understanding of the company's process used to develop the estimate, including the methods used.<sup>49</sup> These requirements also take into account that, in some cases, more than one method may be used to develop a particular estimate. It is important for the auditor to understand the basis for the company's change to its method, as changes that are not based on new information or other changes in the company's circumstances could be indicative of management bias (e.g., changing the method to achieve a favorable financial result).<sup>50</sup>

---

<sup>48</sup> AS 2502.19.

<sup>49</sup> See AS 2110.28, as amended.

<sup>50</sup> See AS 2810 for requirements related to evaluating bias in accounting estimates.

With respect to other comments raised above, a separate requirement to evaluate whether the company failed to revise its method to recognize changes in facts and circumstances is unnecessary as auditors would make this determination when evaluating appropriateness of the method for the nature of the account or disclosure, taking into account the auditor's understanding of the company and its environment. That understanding should inform the auditor about conditions which might indicate that a change in method is needed. For example, the use of a discounted cash flow method to value a financial instrument may no longer be appropriate once an active market is introduced for the instrument. Moreover, changes to the method could result in a change to the corresponding estimate and affect the consistency of the financial statements (as discussed in AS 2820, *Evaluating Consistency of Financial Statements*).<sup>51</sup> In addition, contrary to the views of one commenter, the new standard does not impose any new documentation requirements to the existing provisions of AS 1215.

#### Comparison with Standards of Other Standard Setters

ISA 540 Revised provides that the auditor's procedures shall address (a) whether the method selected is appropriate in the context of the applicable financial reporting framework, and, if applicable, whether changes from the method used in prior periods are appropriate; (b) whether judgments made in selecting the method give rise to indicators of possible management bias; (c) whether the calculations are applied in accordance with

---

<sup>51</sup> See also FASB Accounting Standards Codification Topic 250, *Accounting Changes and Error Corrections*.

the method and are mathematically accurate; and (d) whether the integrity of the significant assumptions and the data has been maintained in applying the method.<sup>52</sup>

AU-C Section 540 requires the auditor to determine whether the methods for making the accounting estimate are appropriate and have been applied consistently, and whether changes, if any, in accounting estimates or in the method for making them from the prior period are appropriate in the circumstances. Further, AU-C Section 540 provides that as part of testing how management made the accounting estimate, and the data on which it is based, the auditor evaluates whether the method of measurement used is appropriate in the circumstance.

#### Testing Data Used

*See paragraphs.12–.14*

The proposed standard discussed the auditor's responsibilities for testing and evaluating both internal and external data. This included (1) reiterating existing requirements in AS 1105 to test the accuracy and completeness of information produced by the company, or to test the controls over the accuracy and completeness of that information;<sup>53</sup> and (2) requiring the auditor to evaluate the relevance and reliability<sup>54</sup> of data from external sources.

The proposed standard also provided that the auditor should evaluate whether the data is used appropriately by the company, including whether (1) the data is relevant to the measurement objective for the accounting estimate; (2) the data is internally

---

<sup>52</sup> See *supra* note 45 for additional requirements related to models.

<sup>53</sup> AS 1105.10.

<sup>54</sup> AS 1105.07–.08.

consistent with its use by the company in other estimates tested; and (3) the source of the company's data has changed from the prior year and, if so, whether the change is appropriate.

A few commenters called for clarification of various aspects of the proposed requirements pertaining to data. For example, one commenter suggested the requirements clarify that company data supplied to a third party or company specialist is not considered to be data from an external source. This commenter also asked for a framework for evaluating whether the source of the company's data has changed from the prior year and, if so, whether the change is appropriate. Another commenter sought more clarity on whether the requirement applies to all data or may be limited to significant data.

Some commenters also suggested additional requirements in this area. For example, one commenter asserted that the existing requirements related to completeness and accuracy of data in AS 1105 do not themselves constitute a procedure that addresses risks of material misstatement and instead, suggested an express requirement to evaluate whether the data used in the estimate is accurate and complete. Another commenter pointed to the existence of data analytics tools as an alternative to sampling, and advocated for some acknowledgement in the requirements of the importance of the integrity of these tools and the controls over their development. One commenter suggested a requirement to assess whether management has appropriately understood or interpreted significant data.

The new standard retains the requirements for testing and evaluating data substantially as proposed, including requirements to evaluate whether the data is relevant to the measurement objective, internally consistent, and whether the source of the



company's data has changed from the prior year and if so, whether the change is appropriate. The new standard builds on the auditor's responsibilities established by AS 1105, including requirements to test the accuracy and completeness of information produced by the company. Contrary to the views of one commenter, AS 1105 currently includes an obligation for the auditor to test company-produced data. Accordingly, an additional requirement to evaluate whether the data used in the estimate is accurate and complete is not necessary. Furthermore, the determination of the data to be tested—and the nature, timing, and extent of that testing—should be based on and responsive to the assessed risks of material misstatement.

Consistent with the proposed standard, AS 2501 (Revised) makes a distinction between procedures to be performed regarding internal data and procedures regarding data from external sources used by the company to develop accounting estimates. Examples of internal data include the company's historical warranty claims and historical losses on defaulted loans. Examples of external data include economic, market, or industry data. Company data supplied by the company to a third party or company specialist is not data from an external source. The new standard also points auditors to Appendix B of AS 1105 for situations in which the valuation of an investment is based on the investee's financial results.

The new standard also retains substantially as proposed requirements to evaluate whether the data was used appropriately by the company. Evaluating the manner in which data was used by the company necessarily builds on the auditor's understanding of the company's process used to develop the estimate. This includes evaluating whether the company's selection and use of data is in conformity with the requirements of the

financial reporting framework. Further, devoting audit attention to changes in the data source might reveal potential contradictory evidence and help the auditor identify potential management bias. For example, while a new source of data might result in an estimate that better reflects a company's specific circumstances, a change in data source could also be used by a company to achieve a desired financial result. The new standard has been modified to clarify that evaluating whether the data is used appropriately includes evaluating whether the data is internally consistent with its use by the company in other significant accounts and disclosures based on similar example procedures in the fair value standard.<sup>55</sup>

As noted by one commenter, significant advances in technology have occurred in recent years, including increased use of data analysis tools. The Board considered how changes in technology could affect the approaches to auditing accounting estimates and believes that the new standard and related amendments are sufficiently principles-based and flexible to accommodate continued advances in the use of data and technology by both companies and auditors.

#### Comparison with Standards of Other Standard Setters

ISA 540 Revised provides that the auditor's procedures shall address (a) whether the data is appropriate in the context of the applicable financial reporting framework, and, if applicable, changes from prior periods are appropriate; (b) whether judgments made in selecting the data give rise to indicators of possible management bias; (c) whether the data is relevant and reliable in the circumstances; and (d) whether the data has been

---

<sup>55</sup>

*See AS 2502.39.*

appropriately understood or interpreted by management, including with respect to contractual terms.

AU-C Section 540 provides that in testing how management made the accounting estimate, and the data on which it is based, the auditor should evaluate whether the data on which the estimate is based is sufficiently reliable for the auditor's purposes.

#### Identification of Significant Assumptions

*See paragraph .15*

The proposed standard provided that the auditor should identify which of the assumptions used by the company are significant assumptions to the estimate and provided criteria to assist the auditor in making this determination. Furthermore, the proposed standard provided that, if the company has identified significant assumptions used in an estimate, the auditor's identification of significant assumptions should also include those assumptions.

Some commenters expressed concern about one of the factors to be considered in identifying significant assumptions—whether an assumption relates to an identified and assessed risk of material misstatement. The commenters opined that the factor was too broad and could result in an excessive number of assumptions being identified as significant. Some of those commenters suggested adding a note to describe how all of the factors set forth in the proposal work together. A few commenters made other suggestions with respect to this requirement including (1) incorporating the requirement to identify assumptions used by the company which are important to the recognition or measurement of the accounting estimate in the financial statements into AS 2110.28e, as amended; (2) adding a qualifying phrase, such as "as applicable," to the factors because

some factors may not always be relevant or may vary in significance; and (3) incorporating the concept described in AS 2502.33 that significant assumptions cover matters that materially affect the estimate.

Some commenters also voiced concerns that the proposed requirement to include as significant those assumptions that the company has identified as significant may not be appropriate because (1) management is not required to designate assumptions as significant, and (2) auditors and company management may reach different conclusions about which assumptions are significant. One commenter expressed the view that the omission of a requirement to identify assumptions beyond what management identified may be inconsistent with the requirements of AS 2110, and suggested the Board clarify the auditor's responsibilities when, for example, management has not considered a specific assumption needed to correctly apply the applicable accounting framework. Another commenter suggested that assumptions identified by the company as significant should be reflected as an additional factor relevant to identifying significant assumptions rather than a requirement.

After consideration of comments received, the requirement was revised. Specifically, the factor regarding whether an assumption relates to an identified and assessed risk of material misstatement was removed. Instead, the new standard requires the auditor to take into account the nature of the accounting estimate, including related risk factors,<sup>56</sup> the requirements of the applicable financial reporting framework, and the auditor's understanding of the company's process for developing the estimate when identifying significant assumptions. Further, the remaining factors from the proposal—

---

<sup>56</sup> See AS 2110.60–.60A, as amended.

sensitivity to variation, susceptibility to manipulation and bias, unobservable data or adjustments, and dependence on the company's intent and ability to carry out specific courses of action—have been reframed in the new standard as examples of assumptions that would ordinarily be significant. The examples provided are not intended to be an exhaustive list of significant assumptions or a substitute for taking into account the auditor's understanding of the nature of the estimate, including risk factors, the requirements of the applicable financial reporting framework, and his or her understanding of the company's process for developing the estimate. Rather, the examples are provided to illustrate how the concepts in the new standard can be applied to identify significant assumptions that are important to the recognition or measurement of an accounting estimate. The revised formulation provides better context for the application of the requirement, as suggested by some commenters, and prompts auditors to consider those assumptions that drive or are associated with identified risks of material misstatement.

The auditor is not expected to document a detailed comparison of each assumption used in the estimate to each factor or example described above. Instead, consistent with AS 1215, the auditor should document the significant assumptions identified and the auditor's rationale for that determination.

In addition, the proposed note—requiring auditors to include as significant those assumptions that the company has identified as significant assumptions—was not included in the new standard. As discussed above, the new standard requires the auditor, in identifying significant assumptions, to take into account the auditor's understanding of the company's process for developing the estimate, which would include understanding

the assumptions used by the company in that estimate (whether expressly identified or implicit in the nature of the estimate or method used). This approach addresses commenter concerns about whether the Board was imposing a responsibility on management to identify significant assumptions.

The intent of the proposed requirement to include significant assumptions identified by the company was to provide the auditor with a starting point for the auditor's evaluation (consistent with the fair value standard). However, since the revised requirement already focuses the auditor on understanding the assumptions used by the company to develop the estimate and the associated risk factors, the new standard does not include a new factor for assumptions identified as significant by management, as suggested by a commenter.

Lastly, the requirement to identify significant assumptions was not relocated to AS 2110.28, as suggested by one commenter, because identifying significant assumptions is an inherent part of testing the company's process for developing estimates.

#### Evaluation of Significant Assumptions

*See paragraphs.16–.18*

The proposed standard set forth requirements to evaluate the reasonableness of significant assumptions used by the company, both individually and in combination, including evaluating whether (1) the company has a reasonable basis for those assumptions and, when applicable, the company's selection of assumptions from a range of potential assumptions; and (2) significant assumptions are consistent with, among other things, the company's objectives, historical data, the economic environment, and market information. In circumstances when the auditor develops an expectation of an

assumption to evaluate its reasonableness, the proposed standard also provided that the auditor should have a reasonable basis for that expectation.

Some commenters asked for clarification of certain aspects of the requirement. For example, a few commenters asked for clarification on the requirement to assess whether management has a reasonable basis for its assumptions. Another commenter asked for an explanation of what "reasonable" is intended to mean in the context of accounting estimates. One commenter sought clarification on how to evaluate differences between management's assumption and the auditor's expectation in circumstances where the auditor develops an expectation of an assumption to evaluate its reasonableness. Another commenter requested that the requirement address factors relevant to evaluating reasonableness of forward-looking information in anticipation of the new accounting standard on credit losses.<sup>57</sup>

With respect to evaluating consistency with baseline information described in the standard, one commenter asked for clarification of how the requirement to evaluate factors in paragraph .16 works with the requirement to "test" in paragraph .09. This commenter also asked for clarification of the extent of the procedures to be performed when evaluating the consistency of significant assumptions with the contextual information set forth in the standard, where relevant, asserting that the requirement may be difficult to apply in practice. Another commenter suggested that the auditor be required to *consider* whether the assumptions are consistent with the information provided in order to better align the provision with language used by the IAASB.

---

<sup>57</sup> See FASB Accounting Standards Update No. 2016-13, *Financial Instruments—Credit Losses* (Topic 326): *Measurement of Credit Losses on Financial Instruments* (June 2016).

One commenter suggested inclusion of a specific requirement to assess significant assumptions for management bias.

The new standard retains the requirements for evaluating reasonableness of significant assumptions substantially as proposed. The requirements recognize that estimates are generally developed using a variety of assumptions and focus the auditor on how the company selects its assumptions.

The auditor's assessment of whether the company has a reasonable basis for a significant assumption (including an assumption based on forward-looking information) relates to whether the assumption used by the company is based on an analysis of relevant information, or determined arbitrarily, with little or no such analysis. The auditor's assessment also involves considering whether the company considered relevant evidence, regardless of whether it corroborates or contradicts the company's assumption.

Under the new standard, the auditor should evaluate whether the significant assumptions are consistent with relevant information such as the company's objectives; historical experience (e.g., prior years' assumptions and past practices), taking into account changes in conditions affecting the company; and other significant assumptions in other estimates tested (e.g., assumptions are consistent with each other and other information obtained). This requirement is consistent with requirements in the fair value standard.<sup>58</sup> In making this evaluation, the auditor uses his or her understanding of the company and its environment, the assessed risks of material misstatement, and his or her understanding of the process used to develop the estimates.

---

<sup>58</sup>*See generally* AS 2502.29–.36.



In circumstances where the auditor develops an expectation of an assumption to evaluate reasonableness, the auditor is required to have a reasonable basis for that expectation (consistent with the requirements regarding developing independent expectations), taking into account relevant information, including the information set forth in the requirement. The new standard does not prescribe specific follow-up procedures when there are differences between the auditor's expectation and the company's significant assumptions. The nature and extent of procedures would depend on relevant factors such as the reason for the difference and the potential effect of the difference on the accounting estimate.<sup>59</sup>

With respect to the comment regarding management bias, the new standard was revised to provide that responding to risks of material misstatement involves, among other things, evaluating potential management bias in accounting estimates, and its effect on the financial statements (in paragraph .05). Furthermore, the requirements in paragraphs .30–.31 of the new standard, as well as AS 2810.27 address the evaluation of bias in accounting estimates. Therefore, an explicit requirement to evaluate bias as part of evaluating reasonableness of significant assumptions is not necessary.

*Intent and Ability*

As part of evaluating the reasonableness of significant assumptions, the proposed standard provided that the auditor take into account factors (e.g., company's past history of carrying out stated intentions, written plans or other documentation, stated reasons for course of action, and the company's ability to carry out action based on financial

---

<sup>59</sup>

*See AS 2501.30–.31 (Revised).*

resources, legal restrictions, etc.) that affect the company's intent and ability to carry out a particular course of action when such action is relevant to the significant assumption.

One commenter asserted that compliance with the proposed requirements would not be possible when information described in factors does not exist and suggested adding the phrase "as applicable" to the requirement.

The new standard retains, as proposed, the requirement to take into account specific factors in evaluating the reasonableness of significant assumptions when the significant assumption is based on the company's intent and ability to carry out a particular course of action. As in other PCAOB standards, the auditor takes factors into account to the extent they are relevant.

#### *Critical Accounting Estimates*

With respect to critical accounting estimates, the proposed standard provided that the auditor should obtain an understanding of how management analyzed the sensitivity of its significant assumptions<sup>60</sup> to change, based on other reasonably likely outcomes that would have a material effect, and to take that understanding into account when evaluating the reasonableness of the significant assumptions and potential for management bias.

Some commenters expressed concern that the proposed requirement may place undue emphasis on, or create an inappropriate linkage with, a company's management discussion and analysis ("MD&A") disclosure. One commenter also suggested that the requirement may not always apply (if, for example, management were unable to perform a sensitivity analysis), and suggested clarification that the intent was for the auditor to

---

<sup>60</sup> For the purposes of this requirement, significant assumptions identified by the company may not necessarily include all of those identified by the auditor as significant.

understand whether, and if so, how, management analyzed the sensitivity of significant assumptions to change.

Some commenters suggested the proposed requirement be recast or aligned as a risk assessment procedure. For example, one commenter observed that the auditor's and management's judgment can differ with respect to critical accounting estimates. That commenter also stated that it was unclear whether the auditor should obtain this understanding if choosing a substantive-only testing strategy. One commenter suggested limiting the proposed requirement to critical accounting estimates with significant risks. Another commenter sought clarification that the requirement does not alter the auditor's responsibilities under AS 2710, *Other Information in Documents Containing Audited Financial Statements*.

The new standard retains the requirement substantially as proposed. In consideration of comments, the requirement was clarified to better align with the SEC's requirement for critical accounting estimates<sup>61</sup> by describing that the sensitivity of management's significant assumptions to change is based on other reasonably likely outcomes that would have a material effect on the company's financial condition or operating performance.

Under the new standard, the auditor is not expected to evaluate the company's compliance with the SEC's MD&A requirements, but rather to obtain an understanding of management's analysis of critical accounting estimates and to use this understanding in

---

<sup>61</sup> See *Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations*, Release No. 33-8350 (Dec. 19, 2003), 68 FR 75056 (Dec. 29, 2003), at Section V ("Critical Accounting Estimates") for management's responsibilities related to critical accounting estimates.

evaluating the reasonableness of the significant assumptions and potential for management bias in accordance with AS 2810.27. In the Board's view, the sensitivity analysis used by the company in developing the critical accounting estimates disclosures for the year under audit can provide important information about the significant assumptions underlying those estimates.

The Board considered recasting the requirement to obtain an understanding of management's analysis of its critical accounting estimates as a risk assessment procedure, as suggested by some commenters. However, this understanding is a necessary part of evaluating the reasonableness of significant assumptions and the potential for management bias in critical accounting estimates, which is a substantive procedure. Moreover, MD&A disclosures regarding critical accounting estimates might not be available until late in the audit, and therefore could affect the timing of related audit procedures.

The requirements in the new standard with respect to critical accounting estimates would not change the auditor's responsibilities under AS 2710 regarding other information in documents containing audited financial statements.

Although there may be significant overlap between estimates with significant risks identified by the auditor and the critical accounting estimates identified by management, the requirements for auditors under paragraph .18 of the new standard are not limited to estimates with significant risks as suggested by one commenter. Rather, the paragraph is consistent with the requirements to evaluate the reasonableness of assumptions in significant accounts and disclosures. The MD&A disclosures regarding critical accounting estimates can provide relevant information to inform the auditor's

evaluation of the reasonableness of the significant assumptions and potential for management bias.

Comparison with Standards of Other Standard Setters

ISA 540 Revised provides that the auditor's procedures shall address (a) whether the significant assumptions are appropriate in the context of the applicable financial reporting framework, and, if applicable, changes from prior periods are appropriate; (b) whether judgments made in selecting the significant assumptions give rise to indicators of management bias; (c) whether the significant assumptions are consistent with each other and with those used in other accounting estimates, or with related assumptions used in other areas of the entity's business activities, based on the auditor's knowledge obtained in the audit; and (d) when applicable, whether management has the intent to carry out specific courses of action and has the ability to do so.

ISA 540 Revised also requires the auditor to address whether, in the context of the applicable financial reporting framework, management has taken appropriate steps to (a) understand estimation uncertainty; and (b) address estimation uncertainty by selecting an appropriate point estimate and by developing related disclosures about estimation uncertainty. When, in the auditor's judgment based on the audit evidence obtained, management has not taken appropriate steps to understand or address estimation uncertainty, ISA 540 Revised requires the auditor to, among other things, request management to perform additional procedures to understand estimation uncertainty or to address it by reconsidering the selection of management's point estimate or considering providing additional disclosures relating to the estimation uncertainty, and evaluate management's response. If the auditor determines that management's response to the

auditor's request does not sufficiently address estimation uncertainty, to the extent practicable, the auditor is required to develop an auditor's point estimate or range.

AU-C Section 540 provides that as part of testing how management made the accounting estimate, and the data on which it is based, the auditor shall evaluate whether the assumptions used by management are reasonable in light of the measurement objectives of the applicable financial reporting framework. Further, for accounting estimates that give rise to significant risks, AU-C Section 540 requires the auditor to evaluate: (a) how management considered alternative assumptions or outcomes and why it rejected them, or how management has otherwise addressed estimation uncertainty in making accounting estimates; (b) whether the significant assumptions used by management are reasonable; and (c) where relevant to the reasonableness of the significant assumptions used by management or the appropriate application of the applicable financial reporting framework, management's intent to carry out specific courses of action and its ability to do so.

AU-C Section 540 further provides that if, in the auditor's professional judgment, management has not addressed adequately the effects of estimation uncertainty on the accounting estimates that give rise to significant risks, the auditor should, if considered necessary, develop a range with which to evaluate the reasonableness of the accounting estimate.

*Company's Use of a Specialist or Third-Party Pricing Information*

*See paragraphs.19–.20*

The proposed standard would have required the auditor to also take into account the work of a company's specialist used in developing an accounting estimate when

determining the evidence needed in testing the company's process. The proposed standard also referenced Appendix B of AS 1105<sup>62</sup> for testing and evaluating the work of a company's specialist when that work is used to support a conclusion regarding a relevant assertion, such as a relevant assertion related to an accounting estimate.

In addition, when third-party pricing information used by the company is significant to the valuation of financial instruments, the proposed standard required the auditor to evaluate whether the company has used that information appropriately and whether it provides sufficient appropriate evidence.

One commenter expressed concern that the proposed requirement would result in practical challenges as it would require the auditor to test the methods, data, and significant assumptions used or developed by a company specialist in the same manner that the auditor would if the accounting estimate was developed without the assistance of a company specialist. Another commenter advocated for closer alignment with the proposed requirements of Appendix B of AS 1105, citing, for example, requirements for testing the accuracy and completeness of company-produced data used by the specialists and evaluating the relevance and reliability of data obtained from external sources.

One commenter advocated for requiring auditors to consider whether company specialists possess specific credentials as part of auditing estimates under the proposed standard.

---

<sup>62</sup> In a separate proposal, the Board proposed to amend its standards regarding the auditor's use of the work of specialists, including specialists employed or engaged by the company ("company's specialist"). *See Proposed Amendments to Auditing Standards for the Auditor's Use of the Work of Specialists*, PCAOB Release No. 2017-003 ("Specialists Proposal"). The Specialists Proposal set forth these amendments in Appendix B of AS 1105.

With respect to circumstances when third-party pricing information used by the company is significant to the valuation of financial instruments, one commenter requested additional guidance or criteria for evaluating whether the company has used third-party pricing information "appropriately" when assessing whether the information provides sufficient appropriate evidence.

In consideration of comments (including those received on the Specialists Proposal), the new standard requires the auditor to look to the requirements of Appendix A of AS 1105 that discuss the auditor's responsibilities for using the work of company specialists.<sup>63</sup> Appendix A of AS 1105 sets forth, among other things, procedures to be performed in evaluating the data, assumptions, and methods used by a company's specialist. Further, rather than addressing specific credentials of the specialist, Appendix A of AS 1105 requires the auditor to assess the knowledge, skill, and ability of the company's specialist.

The new standard retains as proposed the requirement to evaluate, when third-party pricing information used by the company is significant to the valuation of financial instruments, whether the company has used third-party pricing information appropriately and whether it provides sufficient appropriate evidence. The auditor's determination as to whether third-party pricing information was used appropriately by the company includes whether the information is in conformity with the applicable financial reporting framework.

---

<sup>63</sup> The auditor's responsibilities with respect to using the work of a company's specialist are presented as Appendix A of AS 1105. *See* Specialists Release, *supra* note 2. The analogous proposed requirements were originally presented as Appendix B of AS 1105 in the Specialists Proposal.



Comparison with Standards of Other Standard Setters

ISA 540 Revised provides that when using the work of a management's expert, the requirements in paragraphs 21–29 of ISA 540 Revised<sup>64</sup> may assist the auditor in evaluating the appropriateness of the expert's work as audit evidence for a relevant assertion in accordance with paragraph 8(c) of ISA 500, *Audit Evidence*.<sup>65</sup> In evaluating the work of the management's expert, the nature, timing, and extent of the further audit procedures are affected by the auditor's evaluation of the expert's competence, capabilities and objectivity, the auditor's understanding of the nature of the work performed by the expert, and the auditor's familiarity with the expert's field of expertise.

*Developing an Independent Expectation of the Estimate*

*See paragraph .21*

The proposal sought to retain the general approach in the estimates standards for developing an independent expectation,<sup>66</sup> and more explicitly tailored the requirements to the different sources of the methods, data, and assumptions used by the auditor. Those sources include (1) independent assumptions and methods of the auditor, (2) data and

---

<sup>64</sup> Paragraphs 21-29 of ISA 540 Revised describe the requirements for obtaining audit evidence from events occurring up to the date of the auditor's report; testing how management made the accounting estimate; and developing an auditor's point estimate or range.

<sup>65</sup> ISA 540 Revised provides that in obtaining audit evidence regarding the risks of material misstatement relating to accounting estimates, irrespective of the sources of information to be used as audit evidence, the auditor shall comply with the relevant requirements in ISA 500.

<sup>66</sup> See AS 2501.12, AS 2502.40, and AS 2503.40.

assumptions obtained from a third party, and (3) the company's data, assumptions, or methods.

Additionally, while seeking to retain the requirement under the fair value standard for an auditor to understand management's assumptions to ensure that his or her independent estimate takes into consideration all significant variables,<sup>67</sup> the proposal expressly required the auditor to take into account the requirements of the applicable financial reporting framework.

The proposal also replaced certain terms used in the estimates standards to describe audit procedures with more neutral language (such as replacing "corroborate" with "compare") to reduce the risk of confirmation bias or anchoring bias when auditing accounting estimates.

Commenters on this topic were generally supportive of the proposed requirement for developing an independent expectation, indicating that the requirement is clear and sufficient. One commenter asked the Board to clarify situations where developing an independent expectation of the estimate would be appropriate. Another commenter indicated that using the phrase "developing an independent expectation" implies that the auditor would reach this expectation independently, without reference to management's methods, data, and assumptions, and recommended that the Board consider changing this phrasing to developing a "comparative estimate" or a "point estimate" to better reflect the procedures described.

After consideration of these comments, the requirement is adopted substantially as proposed. The determination of when to use an approach or a combination of

---

<sup>67</sup> See AS 2502.40.

approaches is at the auditor's discretion based on the relevant facts and circumstances. In addition, the use of the phrase "developing an independent expectation of the estimate" is consistent with the concept in the estimates standards. The intention of the requirement is not to imply that the auditor could (or should) develop an expectation of the estimate without reference to the company's methods, data, and assumptions, but rather to more explicitly acknowledge that, in developing an independent expectation of the estimate, an auditor could use methods, data, and assumptions obtained from different sources.

Consistent with the proposal, the new standard tailors the requirements to develop an independent expectation to the different sources of the methods, data, and assumptions used by the auditor as set forth in the table below and discussed further in the sections that follow.

<i>Auditor's Independent Expectation Developed Using:</i>	<i>Auditor Responsibility Under the New Standard</i>
Assumptions and methods of the auditor	Have a reasonable basis for the assumptions and methods
Data and assumptions obtained from a third party	Evaluate the relevance and reliability of the data and assumptions
Company data, assumptions, or methods	Test and evaluate in the same manner as when testing the company's process

This approach provides more direction to auditors in light of the various ways in which auditors develop an independent expectation of accounting estimates.

The new standard also expressly prompts the auditor to take into account the requirements of the applicable financial reporting framework when developing an independent expectation. By taking into account the requirements of applicable financial reporting framework, the auditor might identify additional considerations relevant to the estimate that the company did not take into account in its own process for developing the estimate. As with the proposal, the new standard also uses more neutral terms, such as

"evaluate" and "compare" to mitigate the risk of confirmation bias or anchoring bias when auditing accounting estimates. For example, the new standard requires the auditor to compare the auditor's independent expectation to the company's accounting estimate instead of developing an independent fair value estimate "for corroborative purposes."<sup>68</sup>

#### Independent Assumptions and Methods of the Auditor

*See paragraph .22*

The proposal recognized that, when developing an independent expectation of an estimate, the auditor can independently derive assumptions or use a method that differs from the company's method. In those situations, the auditor should have a reasonable basis for his or her assumptions and methods used.

Commenters on this topic were generally supportive of the proposed requirement that the auditor have a reasonable basis for the assumptions and methods used when developing an independent expectation of the estimate. The requirement is adopted as proposed.

Under the new requirement, the auditor is required to have a reasonable basis for the assumptions and methods used to develop an independent expectation. Having a reasonable basis would reflect consideration of, among other things, the nature of the estimate; relevant requirements of the applicable financial reporting framework; the auditor's understanding of the company, its environment, and the company's process for developing the estimate; and other relevant audit evidence, regardless of whether the evidence corroborates or contradicts the company's assumptions.

#### Data and Assumptions Obtained from a Third Party

---

<sup>68</sup>

*See AS 2502.40.*

*See paragraph .23*

The proposal directed the auditor to the existing requirements in AS 1105 when evaluating the relevance and reliability of data or assumptions obtained from a third party. This approach is consistent with the requirements for evaluating data from external sources as described above.

The proposal also directed the auditor to comply with the requirements of proposed AS 1210 when the third party is a specialist engaged by the auditor.<sup>69</sup> The proposal did not set forth specific requirements related to methods obtained from a third party that is not a specialist.

One commenter expressed concern that the proposed requirements were too restrictive and somewhat impractical and that it may not be possible or necessary to obtain data and assumptions from a third party and to create assumptions independent of those of the company. The commenter recommended that the Board retain the extant direction allowing the auditor to use management's assumptions when developing independent expectations.

After consideration of the comment, the requirement is adopted as proposed. As described below, consistent with the estimates standards and the proposal, the new requirement continues to allow the use of company data, assumptions, or methods while also allowing the auditor to use other sources.<sup>70</sup>

---

<sup>69</sup> See paragraph .08 of the proposed standard.

<sup>70</sup> Appendix A of AS 2501 (Revised) applies when the auditor develops an independent expectation of the fair value of financial instruments using pricing information from a third party. These requirements are discussed further below.

Also consistent with the proposal, the new standard does not set forth specific requirements related to methods obtained from a third party, as the Board understands that auditors typically use either the company's methods or their own (which may include specialists' methods) in developing an independent expectation.

Use of Company Data, Assumptions, or Methods

*See paragraph .24*

The proposal sought to retain the existing requirements for the auditor to test data from the company and evaluate the company's significant assumptions for reasonableness, when used by the auditor to develop an independent estimate.<sup>71</sup> The proposal also required the auditor to evaluate the company's method, if the auditor uses that method to develop an independent expectation. The proposal recognized that auditors may use a portion or a combination of data, assumptions, and method provided by the company in developing their expectations. If the company's data, assumptions, or methods are those of a company's specialist, the proposal also directed the auditor to comply with the requirements in proposed Appendix B of AS 1105 for using the work of a company specialist as audit evidence.

One commenter suggested that the Board clarify that when developing an independent expectation of an estimate, the auditor's testing of management's process is limited to those areas on which the auditor intends to rely for purposes of developing the expectation.

This provision is adopted substantially as proposed. Under the new standard, when an auditor chooses to develop an independent expectation using certain of the

---

<sup>71</sup> *See AS 2502.40.*

company's data, significant assumptions, or methods, the auditor is required to test such data or evaluate such assumptions or methods, using the corresponding procedures that apply when the auditor tests the company's process. In response to comments, the text was revised from the proposal to clarify the scope of the obligation to test. The new standard also includes a note referring the auditor to look to the requirements in Appendix A of AS 1105 in situations where the company's data, assumptions or methods were those of a company's specialist.<sup>72</sup>

#### Comparison with Standards of Other Standard Setters

When the auditor develops a point estimate or a range to evaluate management's point estimate and related disclosures about estimation uncertainty, ISA 540 Revised provides that the auditor's further audit procedures include procedures to evaluate whether the methods, assumptions or data used are appropriate in the context of the applicable financial reporting framework. ISA 540 Revised also provides that regardless of whether the auditor uses management's or the auditor's own methods, assumptions or data, further audit procedures be designed and performed to address the matters in paragraphs 23–25 of ISA 540 Revised.<sup>73</sup>

AU-C Section 540 provides that if the auditor uses assumptions or methods that differ from management's, the auditor shall obtain an understanding of management's assumptions or methods sufficient to establish that the auditor's point estimate or range

---

<sup>72</sup> See Specialists Release, *supra* note 2.

<sup>73</sup> Paragraphs 23–25 of ISA 540 Revised describe the auditor's further procedures for addressing methods, significant assumptions, and data.

takes into account relevant variables and to evaluate any significant differences from management's point estimate.

Developing an Independent Expectation as a Range

*See paragraph .25*

The proposal provided that, if the auditor's independent expectation consisted of a range rather than a point estimate, the auditor should determine that the range was appropriate for identifying a misstatement of the company's accounting estimate and was supported by sufficient appropriate audit evidence.<sup>74</sup>

Some commenters asked for clarification or guidance on how to determine that a range is appropriate for identifying a misstatement. Some commenters stated that the proposed requirement implied a level of precision within a range that may not be feasible. Some commenters suggested expressly acknowledging situations where the range is greater than the materiality threshold by including, for example, language similar to IAASB's Exposure Draft, Proposed ISA 540 (Revised) ("ED 540"), paragraph A134.<sup>75</sup> One of these commenters argued that for certain highly judgmental estimates, additional

---

<sup>74</sup> The estimates standards provide for the development of an independent point estimate as one approach for testing accounting estimates, but these standards do not discuss developing an independent expectation as a range of estimates. AS 2810 provides for developing a range of possible estimates for purposes of the auditor's evaluation of misstatements relating to accounting estimates.

<sup>75</sup> ED 540, paragraph A134 stated that "In certain circumstances, the auditor's range for an accounting estimate may be multiples of materiality for the financial statements as a whole, particularly when materiality is based on operating results (for example, pre-tax income) and this measure is relatively small in relation to assets or other balance sheet measures. In these circumstances, the auditor's evaluation of the reasonableness of the disclosures about estimation uncertainty becomes increasingly important. Considerations such as those included in paragraphs A133, A144, and A145 may also be appropriate in these circumstances." Substantially similar guidance appears in paragraph A125 of ISA 540 Revised.



audit work cannot reduce the size of the range below the materiality threshold, and that the proposed requirement could lead to excessive work. Another commenter suggested that the proposed standard did not sufficiently address estimation uncertainty, including what constitutes a reasonable range of estimation uncertainty and how auditors are to address and disclose such uncertainty.

After considering the comments, the requirement has been revised to clarify that, when establishing an independent expectation as a range, the auditor should determine that the range encompasses only reasonable outcomes, in conformity with applicable financial reporting framework, and is supported by sufficient appropriate evidence.

Also, a footnote has been added to paragraph .26 of the new standard reminding auditors that, under AS 2810.13, if a range of reasonable estimates is supported by sufficient appropriate evidence and the recorded estimate is outside of the range of reasonable estimates, the auditor should treat the difference between the recorded accounting estimate and the closest reasonable estimate as a misstatement.

The requirement that the range should be supported by sufficient appropriate evidence is consistent with the principle in the new standard that the auditor should have a reasonable basis for the data, assumptions, and methods used in developing an independent expectation. The sufficiency and appropriateness of the evidence needed will depend on the relevant circumstances, including the nature of the accounting estimate, the requirements of the applicable financial reporting framework, and the number and nature of significant assumptions and data used in the independent expectation.

Notably, the new standard does not restrict the size of the auditor's range to the level of materiality for the financial statements as a whole determined under AS 2105

("financial statement materiality"). An appropriate range in accordance with paragraph .25 of the new standard might be very large, even exceeding financial statement materiality. For example, under certain market conditions, comparable transactions for some assets, even after appropriate adjustment, might indicate a wide range of fair value measurements. As another example, some accounting estimates are highly sensitive to one or more assumptions, such that a small change in an assumption can result in a large change in the value of the estimate. In those situations, the auditor's responsibility is to determine an appropriate range based on the criteria set forth in the new standard.

The Board considered the comments asking for a statement in the standard acknowledging that an independent expectation as a range could exceed the materiality level determined under AS 2105. However, such a statement was not added because it would not have changed the auditor's responsibility under the new standard.

Finally, with respect to estimation uncertainty, the new standard and related amendments acknowledge that estimates have estimation uncertainty, which affects the risks of material misstatement. Neither the Board nor auditors are responsible for placing limits on the range of estimation uncertainty. That uncertainty is a function of the estimate's measurement requirements under the applicable financial reporting framework, the economic phenomena affecting that estimate, and the fact that estimates involve assessments of future outcomes. Under the new standard, the auditor's responsibility is to consider estimation uncertainty in assessing risk and performing procedures in response to risk, which involves evaluating whether the accounting estimates are reasonable in the circumstances and in conformity with the applicable financial reporting framework, as well as evaluating management bias in accounting estimates, and its effect on the

financial statements. These responsibilities are better aligned with the auditor's overall responsibility for planning and performing financial audits.<sup>76</sup>

#### Comparison with Standards of Other Standard Setters

ISA 540 Revised provides that if the auditor develops an auditor's range, the auditor shall (a) determine that the range includes only amounts that are supported by sufficient appropriate audit evidence and have been evaluated by the auditor to be reasonable in the context of the measurement objectives and other requirements of the applicable financial reporting framework; and (b) design and perform further audit procedures to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement relating to the disclosures in the financial statements that describe the estimation uncertainty.

AU-C Section 540 provides that if the auditor concludes that it is appropriate to use a range, the auditor should narrow the range, based on audit evidence available, until all outcomes within the range are considered reasonable.

#### Comparing the Auditor's Independent Expectation to the Company's Accounting Estimate

*See paragraph .26*

The proposal set forth the requirement for the auditor to compare the auditor's independent expectation to the company's estimate and evaluate the differences in accordance with AS 2810.13.<sup>77</sup>

---

<sup>76</sup> Auditors may also have disclosure and reporting responsibilities in relation to these matters. *See AS 3101, The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion*, and AS 1301, *Communications with Audit Committees*.

<sup>77</sup> *See additional discussion of evaluating audit results below.*

No comments were received on this topic. The requirement is adopted substantially as proposed, with an expanded footnote reminding auditors that under AS 2810.13, if a range of reasonable estimates is supported by sufficient appropriate evidence and the recorded estimate is outside of the range of reasonable estimates, the auditor should treat the difference between the recorded accounting estimate and the closest reasonable estimate as a misstatement.

*Evaluating Audit Evidence from Events or Transactions Occurring After the Measurement Date*

*See paragraphs .27–.29*

The proposal noted that events and transactions that occur after the measurement date can provide relevant evidence to the extent they reflect conditions at the measurement date. The proposal provided that the auditor should evaluate whether the audit evidence from events or transactions occurring after the measurement date is sufficient, reliable, and relevant to the company's accounting estimate and whether the evidence supports or contradicts the company's estimate.

Commenters were generally supportive of the proposed requirements, indicating they were clear and sufficient. Two commenters requested additional clarity regarding the assessment of whether the audit evidence is sufficient, reliable, and relevant to the company's accounting estimate, one in the context of subsequent events and one more generally. Another commenter suggested including cautionary language with respect to fair value estimates indicating that fair value measurements are derived from information that would be known or knowable to a market participant at the measurement date.

The Board considered these comments and determined that the requirements in the proposal are sufficiently clear and has adopted the requirements as proposed.

The new standard, as with the proposal, requires the auditor to evaluate whether audit evidence from events or transactions occurring after the measurement date is sufficient, reliable, and relevant to the company's accounting estimate and whether the evidence supports or contradicts the company's estimate. This would include evaluating pertinent information that is known or knowable at the measurement date. For example, the sale of a bond shortly after the balance-sheet date (which in this case is also the measurement date) may provide relevant evidence regarding the company's fair value measurement of the bond as of the balance sheet date if the intervening market conditions remain the same. As another example, when a business combination occurred during the year, events occurring subsequent to the measurement date, such as the cash settlement of short-term receivables, may provide relevant evidence about the accounting estimate as of the measurement date if they reflect conditions at the measurement date. In those situations, the audit procedures would be focused on evaluating the relevance and reliability of the evidence provided by the subsequent event, including the extent to which the subsequent event reflects conditions existing at the measurement date.

Additionally, the new standard requires the auditor to take into account changes in the company's circumstances and other relevant conditions between the event or transaction date and the measurement date. It also notes that as the length of time from the measurement date increases, the likelihood that events and conditions have changed during the intervening period also increases.

#### Comparison with Standards of Other Standard Setters

The corresponding ISA 540 Revised requirement provides that when the auditor's further audit procedures include obtaining audit evidence from events occurring up to the

date of the auditor's report, the auditor shall evaluate whether such audit evidence is sufficient and appropriate to address the risks of material misstatement relating to the accounting estimate, taking into account that changes in circumstances and other relevant conditions between the event and the measurement date may affect the relevance of such audit evidence in the context of the applicable financial reporting framework.

AU-C Section 540 provides that the auditor should determine whether events occurring up to the date of the auditor's report provide audit evidence regarding the accounting estimate.

*Evaluating Audit Results*

*See paragraphs .30–.31*

The proposed standard incorporated existing requirements of AS 2810 for evaluating the results of audit procedures performed on accounting estimates, including evaluating bias in accounting estimates (both individually and in the aggregate).

One commenter noted that the requirements could be interpreted as a presumption that bias always exists in accounting estimates or a requirement to determine whether actual bias exists, and suggested that the standard include the word "potential" when referencing bias, similar to the requirements of AS 2810. Another commenter sought clarification as to whether the proposed standard required the auditor to evaluate bias in individual assumptions.

The new standard retains paragraphs .30 and .31 regarding evaluating audit results substantially as proposed. In consideration of comments, paragraphs .30 and .31 were revised to include a reference to potential bias, consistent with AS 2810.24–.27. The requirements in the new standard are intended to remind auditors of their existing

responsibilities to evaluate potential bias in accounting estimates (both individually and in the aggregate) and its effect on the financial statements. For example, indicators of management bias may affect the assessed risk of material misstatement and the auditor's conclusions about whether accounting estimates are reasonable in the circumstances. As discussed above, individual assumptions that are susceptible to manipulation or bias are ordinarily considered significant and evaluated for reasonableness.<sup>78</sup>

#### Comparison with Standards of Other Standard Setters

ISA 540 Revised requires the auditor to evaluate whether judgments and decisions made by management in making the accounting estimates included in the financial statements, even if they are individually reasonable, are indicators of possible management bias. When indicators of possible management bias are identified, the auditor shall evaluate the implications for the audit. Where there is intention to mislead, management bias is fraudulent in nature.<sup>79</sup>

AU-C Section 540 requires the auditor to review the judgments and decisions made by management in the making of accounting estimates to identify whether indicators of possible management bias exist.

---

<sup>78</sup> See discussion of identification of significant assumptions above.

<sup>79</sup> ISA 540 Revised further requires the auditor to evaluate, based on the audit procedures performed and audit evidence obtained, whether (a) the assessments of the risks of material misstatement at the assertion level remain appropriate, including when indicators of possible management bias have been identified; (b) management's decisions relating to the recognition, measurement, presentation and disclosure of these accounting estimates in the financial statements are in accordance with the applicable financial reporting framework; and (c) sufficient appropriate audit evidence has been obtained.

Both ISA 540 Revised and AU-C Section 540 provide that the auditor should determine whether the accounting estimates and related disclosures are reasonable in the context of the applicable financial reporting framework, or are misstated.

*Appendix A—Special Topics*

*Introduction*

Appendix A of the proposed standard set forth requirements for the auditor to perform specific procedures when auditing the fair value of financial instruments, focusing on the use of pricing information from third parties such as pricing services and brokers or dealers. The proposal also incorporated and built on topics discussed in the derivatives standard, including certain procedures for auditing the valuation of derivatives and securities measured at fair value. The proposed requirements were informed by outreach, including the Pricing Sources Task Force, and publications of other standard setters.

Paragraph .A1 of Appendix A prompts the auditor to obtain an understanding of the nature of the financial instruments being valued in order to identify and assess risks of material misstatement related to the fair value of those instruments. Paragraph .A2 provides the general framework, specifically, the auditor's responsibility to determine whether the pricing information from a third party<sup>80</sup> provides sufficient appropriate evidence to respond to the risks of material misstatement.

---

<sup>80</sup> Appendix A focuses primarily on pricing information from pricing services and brokers or dealers, but paragraph .A2 also covers pricing information obtained from other third-party sources, such as exchanges and publishers of exchange prices.



Paragraphs .A3–.A9 provide more specific direction for cases where pricing information from pricing services and brokers or dealers are used. Paragraph .A10 sets forth factors for the auditor to take into account when obtaining an understanding of how unobservable inputs were determined and evaluating the reasonableness of unobservable inputs when the unobservable inputs are significant to the valuation of financial instruments.

A number of commenters expressed general support for the proposed Appendix A but commented on specific aspects of the proposed requirements. These comments are addressed below in a section-by-section discussion of the proposal and the new standard. In addition, there were two areas of comment that relate to several aspects of the proposed Appendix: (1) the extent to which audit procedures could be performed over groups or classes of financial instruments, rather than individual instruments; and (2) the role played by centralized groups within an accounting firm, such as a pricing desk, in performing procedures related to testing the fair value of financial instruments.

On the first area of comment, commenters asked for clarification on whether all of the required procedures in Appendix A were to be applied to financial instruments individually; expressing concerns that doing so would lead to excessive work. Some commenters suggested clarifying changes to the proposed Appendix, such as inserting "type of" or "types of" before the term "financial instrument" in various requirements in the appendix. One commenter suggested adding a note indicating that the procedures in paragraphs .A4–.A8 of the proposal were not required to be applied to each individual financial instrument. Another commenter suggested that auditors be allowed to

understand and evaluate the methods and inputs used by pricing services at the level of the asset class for financial instruments with lower estimation uncertainty.

The Board did not intend that all required procedures in Appendix A be applied to individual financial instruments in all cases. Rather, the Board intended that financial instruments with similar characteristics and risks of material misstatement could be grouped for purposes of applying substantive procedures. In some circumstances, however, it may not be appropriate to group financial instruments (for example, where financial instruments are dissimilar, or where the auditor does not have a reasonable basis upon which to base the grouping). As discussed in greater detail below, Appendix A of the new standard has been revised to clarify areas where it may be appropriate for procedures to be performed over groups of financial instruments rather than individual financial instruments.

On the second area, commenters asked for additional guidance about the role of centralized groups that the largest accounting firms often use to assist in performing procedures related to testing the fair value of financial instruments. The specific services performed and the nature and level of detail of information provided by centralized groups to engagement teams can vary. Some commenters suggested that the proposal further address how the requirements apply when a centralized pricing desk is used and raised specific issues regarding the use of centralized groups under the proposed requirements. One commenter advocated for more precise requirements about the degree to which procedures may be executed by a centralized group. The new standard does not prescribe the role or responsibilities of centralized pricing groups in audits, and Appendix A does not provide specific direction in that regard. Instead, the new standard

allows engagement teams to continue seeking assistance from centralized groups when performing the procedures required under the new standard. This approach gives audit firms the flexibility to determine the most appropriate way to use their centralized pricing groups on an audit to satisfy the requirement of the new standard.

As under the proposal, centralized groups within the firm that assist engagement teams with evaluating the specific methods and assumptions related to a particular instrument, identifying and assessing risks of material misstatement, or evaluating differences between a company's price and a pricing service's price generally would be subject to the supervision requirements of AS 1201.<sup>81</sup>

*Identifying and Assessing Risks of Material Misstatement Related to the Fair Value of Financial Instruments*

*See paragraph .A1*

Under the proposal, the auditor was to obtain an understanding of the nature of the financial instruments being valued to identify and assess the risks of material misstatement related to their fair value, taking into account specified matters.

Commenters were generally supportive of the proposed requirement. One commenter suggested that the auditor should be permitted to stratify financial instruments into groups as part of identifying and assessing risks of material misstatement, and suggested reframing one of the required procedures to refer to the type of financial

---

<sup>81</sup> Additionally, centralized groups may periodically provide general information within the firm about a pricing service's controls and methodologies or general information on current market conditions for different types of securities. Such general information may inform engagement teams' risk assessments, to the extent that the information is reliable and relevant to their engagements. The activities of centralized groups to obtain and communicate such general information are different in nature from the engagement-specific services provided by the centralized groups, which are subject to supervision. Thus, it is important for firm quality control systems to have policies and procedures related to the accuracy of such general information from centralized groups.

instruments. Paragraph .A1 is not intended to require auditors to obtain an understanding of each financial instrument one-by-one. The language has been revised to refer to financial instruments (plural) or type of financial instruments to make this clear. The new standard allows auditors, where appropriate, to stratify financial instruments into groups with similar characteristics for purposes of performing procedures to evaluate pricing information for financial instruments. In those situations, the auditor's stratification is to be based on his or her understanding of the nature of the financial instruments obtained under paragraph .A1.

*Use of Pricing Information from Third Parties as Audit Evidence*

*See paragraphs .A2–.A3*

The proposal addressed pricing information from organizations that routinely provide uniform pricing information to users, generally on a subscription basis (pricing services), and brokers or dealers. The proposal provided that when the auditor uses pricing information from a third party to develop an independent expectation or tests pricing information provided by a third party used by management, the auditor should perform procedures to determine whether the pricing information provides sufficient appropriate audit evidence to respond to the risks of material misstatement.

Commenters on this topic were generally supportive of the proposed requirement. One commenter questioned whether the use of the word "tests" is appropriate in relation to pricing information provided by a third party used by management, because it might be inconsistent with other requirements in the proposed standard. The commenter requested clarification as to whether the use of the word "tests" in paragraph .A2 is intended to set

out a different work effort than what AS 1105 would require to evaluate information from external sources.

Another commenter questioned whether receiving prices from a third-party service, in and of itself, amounts to using a service organization. The commenter claimed that, based solely on the criteria in paragraph .03 of AS 2601, *Consideration of an Entity's Use of a Service Organization*, without the context provided by AS 2503.11–.14, it is likely that third-party pricing services would often be considered service organizations, and that this outcome is not warranted given the relatively low risks involved. The same commenter asked about how paragraph .A3 would be applied to situations in which pricing services prepare pricing information upon client request, but follow uniform procedures that cause the preparer of the specific information to be unaware of the identity of the user, such that bias of the user would not be introduced.

Paragraphs .A2 and .A3 of the standard are adopted as proposed, except for the revision discussed below. Under the new standard, as with the proposal, when the auditor uses pricing information from a third party to develop an independent expectation or evaluates pricing information provided by a third party that is used by the company, the auditor is required to perform procedures to determine whether the pricing information provides sufficient appropriate evidence to respond to the risks of material misstatement. This approach focuses auditors on assessing the relevance and reliability of the pricing information regardless of whether it is obtained by the company or the auditor, which should lead to more consistency in practice. The new standard also includes a reminder that under AS 2301.09, the auditor should design audit procedures to obtain more persuasive audit evidence the higher the auditor's assessment of risk. This added reminder

reinforces the principle that the required procedures are scalable based on the assessed risks of material misstatement. In general, fair values of financial instruments based on trades of identical financial instruments in an active market have a lower risk of material misstatement than fair values derived from observable trades of similar financial instruments or unobservable inputs. Thus, the necessary audit response would also differ. For example, for exchange-traded securities in active markets, quoted prices obtained from a stock exchange may provide sufficient appropriate evidence.

After consideration of comments, the word "tests" has been replaced with "evaluates" to clarify that the requirement is consistent with the work effort ordinarily required by AS 1105 when evaluating information from external sources.

As is the case under existing PCAOB standards, a pricing service would continue to be a service organization if the services it provides to a subscriber are part of the subscriber's information system over financial reporting.<sup>82</sup> In those instances, the auditor would apply the requirements of the new standard when performing substantive testing and look to the requirements of AS 2601 regarding his or her responsibilities for understanding and evaluating controls of the pricing service. The Board does not intend that the new standard would change practice in this area, given that the criteria for being a service organization under PCAOB standards have not changed.

The applicability of either Appendix A or the requirements for using the work of specialists to pricing services depends on the nature of the service provided and the characteristics of the instrument being valued. Appendix A applies when the auditor uses uniform pricing information from pricing services that is routinely provided to their

---

<sup>82</sup>*See AS 2601.03.*

users, generally on a subscription basis. This pricing information may be generated at various points in time and is available to all subscribers including both companies and audit firms. In general, financial instruments covered by these services tend to be those with more direct or indirect observable inputs.

As with the proposal, the new standard includes a footnote providing that, when a pricing service is engaged by a company or auditor to individually develop a price for a specific financial instrument not routinely priced for subscribers, the requirements in Appendix A of AS 1105 (company-engaged specialists) or AS 1210 (auditor-engaged specialists) apply, depending on who engaged the pricing service.<sup>83</sup> In general, financial instruments covered by these services have few direct or indirect observable market inputs (for example, because of an issuer's default, a delisting, or a major change in liquidity of the related asset class).

*Using Pricing Information from Pricing Services*

*See paragraph .A4*

The proposal set forth a number of factors that affect the reliability of pricing information provided by a pricing service. These factors built on existing requirements for evaluating the reliability of audit evidence under AS 1105.

Some commenters suggested changes to or asked for clarification of the proposed factors for assessing the reliability of pricing information from pricing services. For example, some commenters asked for clarification or guidance regarding the required work effort to evaluate the pricing service, such as the nature and extent of procedures to evaluate the expertise and experience of the pricing service and whether the required

---

<sup>83</sup>

*See Specialists Release, supra note 2.*

procedures were to be applied separately for each financial instrument. Also, one commenter made specific suggestions regarding factors to be considered in evaluating the reliability and relevance of third-party pricing information. One commenter argued that the requirements of paragraphs .A4b, .A5c, and .A7 are unrealistic in some cases because auditors will not have access to the details of pricing service methodology, data, and assumptions. According to the commenter, requiring auditors to perform additional procedures in such cases without further guidance on procedures to be performed is unhelpful to the smaller companies who, in the commenter's view, are most likely to be unable to obtain an independent valuation, and to smaller audit firms without a pricing desk.

Additionally, some commenters requested guidance on how the auditor should determine that the pricing service, broker or dealer does not have a relationship with the company that could directly or indirectly or significantly influence the pricing service or broker or dealer. Other commenters suggested that auditors consider the results of their procedures regarding related parties under AS 2410 when considering the relationship of a pricing service or broker or dealer to the issuer. Other commenters suggested clarifying that a price challenge by management based on substantive information that causes the pricing service to change its price should not generally be deemed significant influence by management.

After consideration of the comments received, the new standard has been revised as follows:



- The requirements have been revised to clarify that the procedures in this paragraph are not required to be applied separately for each instrument (e.g., through the use of phrases such as "types of financial instruments").
- The new standard includes a note<sup>84</sup> clarifying that procedures performed under AS 2410 should be taken into account in determining whether the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service as described in paragraph .A4c. The Board believes that pricing information from parties not considered to be related parties would ordinarily be more reliable than pricing information from sources determined to be related parties. The results of procedures performed under AS 2410 would provide information about whether the pricing service is a related party and, if so, the nature of relationships between the company and the pricing service. The nature and extent of further procedures that might be needed depend on the relevant circumstances. For example, if the results of AS 2410 procedures identified relationships between the company and pricing service, the auditor would need to evaluate whether the relationships gave company management the ability to directly or indirectly control or significantly influence the pricing service. Also, additional procedures might be needed to ascertain whether the pricing service was economically dependent on

---

<sup>84</sup>*See first note to paragraph .A4 in AS 2501 (Revised).*

the company's business, if the pricing service was a smaller entity with few subscribers.

- The new standard also includes a note<sup>85</sup> clarifying that the existence of a process by which subscribers can challenge a pricing service's pricing information does not, by itself, mean that company management has the ability to directly or indirectly control or significantly influence that pricing service. The Board agrees with commenters that the existence of such a price challenge process ordinarily would not, on its own, suggest significant influence over the pricing service.
- The new standard also includes a note<sup>86</sup> indicating that if the auditor performs procedures to assess the reliability of pricing information provided by a pricing service at an interim date, the auditor should evaluate whether the pricing service has changed its valuation process relative to the types of financial instruments being valued, and, if so, the effect of such changes on the pricing information provided at period end. The Board understands that firms may perform procedures at various times during the year with respect to the methodology used by pricing service. The note reminds auditors that if the pricing service changes its process, e.g., because of changes in market conditions, it is important for the auditor to evaluate the effect of such changes on the pricing

---

<sup>85</sup> See second note to paragraph .A4 in AS 2501 (Revised).

<sup>86</sup> See third note to paragraph .A4 in AS 2501 (Revised).

information provided at period end to determine whether the pricing service continues to provide relevant evidence at that date.

As with the proposal, the new standard recognizes that pricing information that is routinely provided by a pricing service with experience and expertise relative to the type of financial instrument being valued is generally more reliable than a price developed by a pricing service that has limited or no experience. The Board agrees with the commenters that the number and financial industry experience levels of evaluators employed by the pricing service, the extent of informational resources that the pricing service provides to assist users in understanding its data and evaluation methodologies, and the pricing service's evaluation quality controls and price challenge processes, among other things, are relevant considerations when evaluating experience and expertise. However, the absence of lengthy experience pricing a particular instrument does not necessarily mean that the pricing service is incapable of providing relevant audit evidence. The evaluation of experience and expertise should be based on the relevant facts and circumstances including the need to obtain more persuasive audit evidence as the assessed risk of material misstatement increases.

Similar to the proposal, the new standard contemplates that pricing services use different methodologies to determine fair value. The Board understands, based on observation from oversight activities and outreach that many pricing services provide information to their subscribers about their methodology, which can be assessed to determine whether that methodology is in conformity with the applicable financial reporting framework. Under the new standard, the evaluation of pricing service methodology can be performed for groups of financial instruments, provided that certain

conditions set forth in the Appendix are met. When an auditor is unable to obtain information about the methodology used by the pricing service to determine fair values of the types of financial instruments being valued, additional or alternative procedures to obtain the necessary evidence may include, for example, obtaining and evaluating pricing information from a different pricing source, obtaining evidence about the inputs used from public data about similar trades, or developing an independent expectation.

The new standard, as with the proposal, also provides that the procedures in Appendix A apply to pricing information obtained from pricing sources used by the company in their estimation process as well as from those obtained by the auditor for the purpose of developing an independent expectation.<sup>87</sup> This approach focuses on assessing the relevance and reliability of the pricing information obtained, rather than of the third party itself, and is better aligned with the assessed risks of material misstatement.

*See paragraph .A5*

The proposal set forth certain factors that are important to the auditor's assessment of the relevance of pricing information provided by a pricing service.

Two commenters suggested that the description of the factors seemed to indicate that auditors need to understand how each financial instrument in the portfolio is valued individually, whereas in their view, auditors should be able to assess these factors based on the asset class and other characteristics.

---

<sup>87</sup> An auditor's ability to use sampling methodologies and pricing information obtained from pricing sources used by the company may differ under other requirements, such as interpretive releases issued by the SEC. *See, e.g., SEC, Codification of Financial Reporting Policies Section 404.03, Accounting, Valuation and Disclosure of Investment Securities*, Accounting Series Release No. 118 (Dec. 23, 1970), which provides requirements for audits of SEC-registered investment companies.

The Board did not intend to require auditors to assess the factors set forth in this paragraph individually for each financial instrument in all cases, but rather, where applicable, to allow auditors to consider the factors for groups of financial instruments with similar characteristics and risks of material misstatement. Accordingly, the new standard has been revised to use the plural term "financial instruments" to clarify where a broader application is intended.

Like the proposal, the new standard provides direction on evaluating the relevance of pricing information provided by a pricing service, building on the requirements related to the relevance of audit evidence under AS 1105.<sup>88</sup> Under the new standard, the procedures to be performed generally depend on whether there is available information about trades in the same or similar securities.

*Fair values based on quoted prices in active markets for identical financial instruments.* The relevance of pricing information depends on the extent to which the information reflects market data as of the measurement date. Recent trades of identical financial instruments generally provide relevant audit evidence.

*Fair values based on transactions of similar financial instruments.* Only a fraction of the population of financial instruments is traded actively. For many financial instruments, the available audit evidence consists of market data for trades of similar financial instruments or trades of the identical instruments in an inactive market. This is the context in which the Board thinks it is most likely that procedures would be performed for groups of financial instruments of a similar nature (taking into account the matters in paragraph .A1) that are priced by the pricing service using the same process.

---

<sup>88</sup>*See AS 1105.07.*

How a pricing service identifies and considers transactions comparable to the financial instrument being valued affects the relevance of the pricing information provided as audit evidence. When fair values are based on transactions of similar instruments, the new standard requires the auditor to perform additional audit procedures to evaluate the process used by the pricing service, including evaluating how transactions are identified, considered comparable, and used to value the types of financial instruments selected for testing, as discussed below.

*No recent transactions have occurred for the same or similar financial instruments.* When no recent transactions have occurred for either the financial instrument being valued or similar financial instruments, pricing services may develop prices using broker quotes or models. How a pricing service develops prices for these financial instruments, including whether the inputs used represent the assumptions that market participants would use when pricing the financial instruments, affects the relevance of the pricing information provided as audit evidence.

When pricing information from a pricing service indicates no recent trades for the financial instrument being valued or similar instruments, the new standard requires the auditor to perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of the observable and unobservable inputs used by the pricing service, as discussed below. These types of financial instruments would generally be valued individually.

*See paragraph .A6*

The proposal provided that when the fair values are based on transactions of similar financial instruments, the auditor should perform additional audit procedures to evaluate the process used by the pricing service.

Some commenters requested clarification or guidance on the additional procedures to be performed when evaluating the process used by a pricing service, and guidance for situations in which the auditor is unable to perform the procedures. Another commenter asked for clarification regarding firm-level due diligence over pricing services, arguing that the standard as proposed would preclude the use of centralized pricing desks or firm-level due diligence procedures in evaluating a pricing service's process.

After consideration of comments received, this paragraph in the new standard has been revised in two respects. First, a phrase was added to clarify that the additional procedures to be performed relate to how transactions of similar instruments are identified, considered comparable, and used to value the types of financial instruments selected for testing.

Second, in light of previously discussed comments requesting clarification about the unit of testing, a note was added to paragraph .A6 of the new standard providing that that when a pricing service uses the same process to price a group of financial instruments, the audit procedures to evaluate the process can be performed for those financial instruments as a group, rather than for each instrument individually, if the financial instruments are similar in nature (taking into account the matters in paragraph .A1 of the new standard). The note was included with this paragraph because, as previously noted, these are the situations in which the Board believes auditors would be

most likely to perform procedures at a group level. To address the use of group-level procedures in other contexts, a footnote was added to the note indicating that other procedures required by the Appendix may also be performed at a group level, provided that the conditions described in the note are met.

The new standard does not prescribe detailed procedures because the necessary audit procedures will vary in nature and extent depending on a number of factors, including the relevant risks and the process used by the pricing service (e.g., matrix pricing, algorithm, or cash flow projections). For example, evaluating the reasonableness of a fair value based on the estimated cash flows from a pool of securitized mortgage loans would differ from evaluating an input derived from adjusted observable data. Procedures may include for example, evaluating how comparable transactions are selected and monitored or how matrix pricing is developed.

Additionally, the new standard does not prescribe who is to perform the procedures with respect to pricing services. It is the Board's understanding of current practice that, in large firms, firm-level due diligence over pricing services is typically performed centrally by a national-level pricing desk and not undertaken by each engagement team. The determination of whether the due diligence procedures over a pricing service should be performed by an engagement team or by the national office centralized group is at the discretion of the auditor, based on the relevant facts and circumstances. The Board does not intend that the new standard would give rise to a change in current practice in this area.

*See paragraph .A7*



The proposal provided that when there are no recent transactions either for the financial instrument being valued or for similar financial instruments, the auditor should perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of observable and unobservable inputs used by the pricing service.

One commenter requested clarification or guidance on the additional procedures to be performed in circumstances when no recent transactions have occurred for either the financial instrument or similar financial instruments, expressing concern about smaller firms' ability to comply with the proposed requirement.

The requirement has been adopted substantially as proposed. Given the diverse nature of financial instruments that fall into this category, prescribing detailed procedures is impractical. The necessary audit procedures to evaluate the valuation methods and inputs will vary based on the relevant risks, type of inputs, and valuation methods involved.

Additionally, when an auditor is unable to obtain information from a pricing service about the method or inputs used to develop the fair value of a financial instrument when no recent transactions have occurred for either the financial instrument being valued or for similar financial instruments, the auditor is required under the new standard to perform additional procedures, such as obtaining and evaluating pricing information from a different pricing source, obtaining evidence about the inputs used from public data about similar trades, or developing an independent expectation.

*Using Pricing Information from Multiple Pricing Services*

*See paragraph .A8*

The proposal provided direction for using pricing information from multiple pricing services to assess the valuation of financial instruments. Specifically, the proposal set forth certain conditions under which less information is needed about the particular methods and inputs used by the individual pricing services when pricing information is obtained from multiple pricing services. In general, these factors relate to situations in which there is reasonably consistent pricing information available from several sources with ample observable inputs.

Commenters on this paragraph generally supported the underlying principle that less evidence may be needed when pricing information is obtained from multiple pricing services. Some commenters questioned one of the conditions set forth in the proposal, related to the methods used to value the financial instruments. Those commenters suggested that requiring the auditor to understand the valuation methods used was inconsistent with the concept of obtaining less information. One commenter suggested that sufficient appropriate audit evidence could be obtained solely on the basis of two of the conditions: that the instruments are routinely priced by several pricing services, and the prices obtained are reasonably consistent. Some commenters asked for clarification on whether the conditions can be applied on a group basis or would be required to be applied to individual financial instruments, expressing concern that the latter approach would lead to excessive work.

Other commenters sought clarification or offered suggestions regarding the wording of some of the conditions set forth in the proposal. One commenter suggested consistently using the terms "multiple" and "several" in relation to pricing services. Another commenter asked for clarification of the meaning of the phrase "reasonably

consistent between or among the pricing services from which pricing information is obtained," specifically, whether the phrase referred to consistent over a period of time or as of a point in time.

Another commenter suggested a different set of conditions for when less evidence may be needed. In that commenter's view, the auditor would have obtained sufficient appropriate audit evidence with respect to the valuation of a financial instrument if: (i) the auditor assesses the financial instrument to have "lower estimation uncertainty" (e.g., based on the asset class and other characteristics of the financial instrument), (ii) the auditor obtains multiple prices from pricing services for the financial instrument, (iii) those pricing services routinely price that type of financial instrument, (iv) the prices obtained are reasonably consistent, and (v) the auditor has obtained an understanding of the pricing services' methodologies at an asset class level of the financial instrument.

Another commenter suggested that the standard should require taking the average of a reasonable number of available prices, excluding outliers, and that procedures such as those outlined in paragraph .A4 should be performed for at least one pricing source. The same commenter also requested clarification of whether and how pricing sources like Google and Yahoo Finance may be used.

After consideration of the comments received, paragraph .A8 in the new standard has been revised to remove the reference to valuation methods and to make other wording changes that, along with the footnote to paragraph .A6, clarify that procedures under this paragraph can be performed at a group level, provided that the conditions described in the note to paragraph .A6 are met.

Regarding the comment on usage of the terms "multiple" and "several" in Paragraph .A8, the term "multiple" refers to more than one pricing service. The term "several" is used to clarify that, under the condition in paragraph .A8, pricing information is to be obtained from more than two pricing services, all of which routinely price the instruments.

The new standard includes the condition that prices obtained are reasonably consistent across pricing services (as of a relevant point in time), taking into account the nature and characteristics of the financial instruments being valued and market conditions. For example, the range of prices that would be reasonably consistent would be narrower for a type of financial instrument with a number of observable market inputs, such as recent trades of identical or substantially similar instruments, than for a type of instrument with relatively few observable market inputs.

The suggestion to compute averages of prices from different sources was not included in the new standard because averages could obscure a wide range of price variation and no consideration would be given to whether certain prices are more indicative of the fair value of the instrument than others. The Board considered the other factors suggested by commenters and determined that those factors generally were similar in nature to requirements in Appendix A. For example, the suggested factor based on lower estimation uncertainty is, in the Board's view, subsumed in the other listed factors.

Web sites that publish, for the general public, prices for exchange-traded securities in active markets are not pricing services as described in the new standard, and the auditor's responsibility for information from those sources is set forth in paragraph

.A2 of the new standard. Evaluating whether securities prices from these web sites provide sufficient appropriate evidence includes evaluating whether the web sites obtain the prices directly from original sources (e.g., stock exchanges).

*Using Pricing Information from a Broker or Dealer*

*See paragraph .A9*

The proposal set forth certain factors that affect the relevance and reliability of the evidence provided by a quote from a broker or dealer. In addition, the proposal included an amendment to AS 1105.08 to more broadly address restrictions, limitations, and disclaimers in audit evidence from third parties.

Some commenters asked for guidance on the proposed requirement to evaluate the relationship of the source of the pricing information with the company, including the factors to be evaluated. Another commenter suggested that the standard state that the list of factors affecting relevance and reliability is not all inclusive, although the commenter did not suggest additional factors to be included. One commenter asserted that the proposal would result in a significant change in practice, and suggested that the Board should consider whether there were lower risk circumstances for which a broker quote may be sufficient appropriate audit evidence without meeting all criteria. Another commenter noted that the first sentence of the paragraph reads as though it applies only when the auditor tests the company's price based on a quote from a broker or dealer. The commenter suggested that the proposal should clarify whether the requirement would also apply when the auditor develops an independent expectation using a broker quote.

The new standard has been revised to include a note providing that auditors should take into account the results of the procedures performed under AS 2410, *Related*

*Parties*, when determining whether the broker or dealer has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the broker or dealer. Otherwise, the requirements in the new standard have been adopted substantially as proposed. The Board believes that the factors set forth in the standard provide sufficient direction to the auditor to evaluate the relevance and reliability of the evidence provided by the quote, in order to determine whether the quote provides sufficient appropriate evidence in light of the risks of material misstatement.

The requirements in the proposal were framed in terms of when the company's fair value measurement is based on a quote from a broker or dealer because the Board understands that this is the situation typically encountered in practice. However, the factors set forth in the standard relate to the relevance and reliability of audit evidence from those quotes, and thus are equally applicable to those less common situations when the auditor uses a broker quote to develop an independent expectation. The requirement in the new standard has been revised to remove the reference to the "company's" measurement.

If the broker quote does not provide sufficient appropriate evidence, the auditor would be required to perform procedures to obtain relevant and reliable pricing information from another source (for example, obtaining a quote from a different broker or dealer, obtaining pricing information from a pricing service, or developing an independent expectation).

*Unobservable Inputs*

*See paragraph .A10*

The proposal set forth a requirement for the auditor to obtain an understanding of how unobservable inputs were determined and to evaluate the reasonableness of those inputs. This understanding would involve, among other things, taking into account the assumptions that market participants would use when pricing the financial instrument, including assumptions about risk, and how the company determined its fair value measurement, including whether it appropriately considered available information. For example, if management adjusts interest rates, credit spread, or yield curves used to develop a fair value measurement, the auditor would be required to evaluate whether the adjustments reflect the assumptions that market participants would ordinarily use when pricing that type of financial instrument.

The two commenters on this paragraph expressed opposing views. One commenter supported the requirement while the other commenter suggested deleting the paragraph.

The requirement is adopted as proposed. By providing factors that the auditor takes into account, the new standard provides additional direction in an area that is inherently subjective and judgmental in nature and therefore poses a higher risk of material misstatement.

#### Additional Amendments to PCAOB Auditing Standards

The Board has also adopted amendments to several of its existing auditing standards to conform to the new standard, as reflected in Exhibit A to the SEC Filing Form 19b-4, available on the Board's website at

<https://pcaobus.org/Rulemaking/Pages/docket-043-auditing-accounting-estimates-fair->

[value-measurements.aspx](#) and at the Commission's Public Reference Room. Significant amendments are described below.<sup>89</sup>

*Amendments to AS 1015, Due Professional Care in the Performance of Work*

The proposed amendments to AS 1015.11 included two changes to the discussion of reasonable assurance when auditing accounting estimates (1) clarifying that many (although not all) accounting presentations contain accounting estimates, the measurement of which is inherently uncertain and depends on the outcome of future events; and (2) providing that, in auditing accounting estimates, the auditor considers information through the date of the auditor's report, which under PCAOB standards is a date no earlier than the date on which the auditor has obtained sufficient appropriate evidence.<sup>90</sup>

One commenter advocated for including language in AS 1015 that explains inherent limitations that an auditor may face with regard to identifying and evaluating management bias in accounting estimates. In this commenter's view, financial reporting frameworks do not distinguish between reasonable judgment latitude, subconscious management bias, and willful biased manipulation.

The amendments are adopted substantially as proposed. The Board acknowledges that various circumstances can give rise to management bias and that, given the subjective assumptions and uncertainty inherent in many estimates, bias cannot be eliminated entirely. The new standard, as well as other PCAOB standards, address the

---

<sup>89</sup> The discussion that follows excludes conforming amendments that make reference to the new standard.

<sup>90</sup> See paragraph .01 of AS 3110, *Dating of the Independent Auditor's Report*.



auditor's responsibilities for evaluating potential management bias in accounting estimates and its effect on financial statements.

*Amendments to AS 1105, Audit Evidence*

The proposed amendment to AS 1105.08 would require the auditor to evaluate the effect of any restrictions, limitations, or disclaimers imposed by a third party on the reliability of evidence provided by that party.

A few commenters sought guidance on how to apply the requirement, including how the auditor would determine if the evidence was sufficiently reliable.

The amendment to AS 1105.08 is adopted as proposed. Third-party information often contains restrictions, limitations, or disclaimers as to the use of such information and its conformity with the applicable financial reporting framework. The nature of the restriction, limitation, or disclaimer and how the information provided is being used would inform the auditor's assessment of whether the evidence provided by the third-party information is sufficiently reliable, or whether additional procedures need to be performed (and, if so, the nature and extent of such procedures). For example, language in a business valuation disclaiming responsibility for company-provided data used to prepare the valuation may not affect the reliability of that valuation as long as the auditor performs audit procedures to test company-provided data used.

*Appendix B, Audit Evidence Regarding Valuation of Investments Based on Investee Financial Results*

The proposal set forth amendments to add Appendix A, *Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results*, to AS 1105. The proposed amendments would have retained and updated certain requirements from the derivatives standard for situations in which the valuation of an

investment selected for testing is based on the investee's financial condition or operating results, including certain investments accounted for by the equity method and investments accounted for by the cost method for which there is a risk of material misstatement regarding impairment.

Commenters expressed concerns that the updated requirements in the proposal were written in a manner that was overly prescriptive, impracticable, burdensome, or inconsistent with the application of a risk-based approach. For example, commenters asserted that certain procedures involving interaction with investee management or the investee auditor were not practicable because the investor company's auditor might not have access to those parties. Commenters also sought clarification on the intent and application of several procedures set forth in the appendix.

After consideration of comments, the Board has decided to retain the existing requirements from the derivatives standard, with only limited conforming changes. The requirements are set forth as Appendix B, *Audit Evidence Regarding Valuation of Investments Based on Investee Financial Results*, to AS 1105. The intent of updating the requirements from the derivatives standard was to better align the required procedures with the risk assessment standards, not to substantively change audit practice in this area. Retaining the language of the existing requirements is consistent with the intention not to change audit practice. The requirements of the risk assessment standards continue to be applicable to investments audited under Appendix B of AS 1105.

*Amendment to AS 1205, Part of the Audit Performed by Other Independent Auditors*

AS 1205.14 discusses the applicability of that standard to situations where the company being audited has an investment accounted for under the equity method or the

cost method and the investee is audited by another auditor. In consideration of comments on the appendix to AS 1105 discussed above, the Board is also amending AS 1205 to help auditors determine the appropriate standard to apply in those situations. Specifically, the amendment provides that the auditor should look to the requirements of Appendix B of AS 1105 for situations in which the valuation of an investment selected for testing is based on the investee's financial results and neither AS 1201 nor AS 1205 applies. The amendment clarifies that Appendix B of AS 1105 applies when AS 1205, by its terms, does not apply and the investee auditor is not supervised under AS 1201.

*Amendments to AS 2110, Identifying and Assessing Risks of Material Misstatement*

The proposal included a number of amendments to AS 2110 related to:

- Obtaining an understanding of the processes used to develop accounting estimates and evaluating the use of service organizations that are part of a company's information system;
- Discussing how the financial statements could be manipulated through management bias; and
- Assessing additional risk factors specifically for accounts and disclosures involving accounting estimates.

One commenter suggested that requirements related to identifying and assessing risks of material misstatements in accounting estimates should be in one standard (i.e., new standard) rather than amending the various risk assessment standards. In contrast, another commenter expressed support for amending other PCAOB standards as a result of a new standard on accounting estimates.

The amendments to AS 2110, described in more detail below, are adopted substantially as proposed.

#### Information and Communication

The proposed amendment to AS 2110.28 would require the auditor, as part of obtaining an understanding of a company's information system and related business processes, to obtain an understanding of the processes used to develop accounting estimates, including (1) the methods used, which may include models; (2) the data and assumptions used, including the source from which they are derived; and (3) the extent to which the company uses specialists or other third parties, including the nature of the service provided and the extent to which the third parties use company data and assumptions.

The proposed amendment also included a note emphasizing that the requirements in AS 2601 with respect to the auditor's responsibilities for obtaining an understanding of controls at a service organization would apply when the company uses a service organization that is part of the company's information system over financial reporting. In addition, for critical accounting estimates, the proposed amendment referenced a requirement in the proposed standard for the auditor to obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect.

One commenter suggested a requirement for the auditor to obtain an understanding of how management identifies and addresses the risk of management bias. Another commenter suggested adding language similar to the existing note on evaluation

of risk and controls within the information system to clarify that a service organization is part of the evaluation, not a separate consideration.

In light of related amendments to AS 2110 in the Board's rulemaking on the auditor's use of specialists, the amendment to AS 2110.28 was revised to clarify that the auditor's understanding of the processes used to develop accounting estimates includes the extent to which the company uses third parties other than specialists.<sup>91</sup>

The amendment emphasizes elements of assessing the risks of material misstatement that are specifically relevant to accounting estimates, recognizing that the methods, data and assumptions used by the company in its process to develop accounting estimates, including how they are selected and applied, drive the risk associated with the estimate. In addition, as part of obtaining an understanding the information system, the amendment reminds the auditor to consider whether the requirements of AS 2601 are applicable to the third party used by the company in developing an accounting estimate.

A separate requirement for the auditor to obtain an understanding of how management identifies and addresses the risk of management bias was not necessary as the new standard requires the auditor to evaluate management bias and its effect on financial statements as part of responding to risks of material misstatements in accounting estimates.

#### Comparison with Standards of Other Standard Setters

Similar to this amendment, ISA 540 Revised sets forth requirements to obtain an understanding of how management identifies the relevant methods, assumptions or

---

<sup>91</sup> See the Specialists Release, *supra* note 2, for a discussion of auditors' responsibilities with respect to specialists.

sources of data, and the need for changes in them, that are appropriate in the context of the applicable financial reporting framework, including how management (a) selects or designs, and applies, the methods used, including the use of models; (b) selects the assumptions to be used, including consideration of alternatives, and identifies significant assumptions; and (c) selects the data to be used.

#### Discussion of the Potential for Material Misstatement Due to Fraud

AS 2110.52 requires the key engagement team members to discuss the potential for material misstatement due to fraud. The proposed amendment to AS 2110.52 would require the auditor to include, as part of this discussion, how the financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures.

Commenters that addressed this topic were generally supportive of the amendment but provided some suggestions for refinements. One commenter suggested that the standard include discussion of different types of bias. Another commenter also indicated that, in their view, the consideration of bias may be better placed in paragraphs .49–.51 of AS 2110 as part of the overall discussion of the susceptibility of the financial statements to material misstatement. Further, in one commenter's view, the requirement implied that the auditor should seek out bias in every accounting estimate. This commenter suggested the language be revised to focus on estimates that are "more susceptible" to material misstatement from management bias or where management bias is "more likely to" result in a material misstatement.

The amendment to AS 2110.52 is adopted as proposed. Contrary to the view of one commenter, the requirement does not direct the auditor to seek out bias in each

estimate. Rather, by including the potential for management bias (regardless of type) as part of the engagement team's overall brainstorming discussion, the requirement focuses the auditor's attention on a risk that is particularly relevant to accounting estimates in significant accounts and disclosures. In addition, including the requirement as part of paragraph .52 provides additional context as to the nature of the discussion about susceptibility of the company's financial statements to material misstatement due to fraud.

Identifying Significant Accounts and Disclosures and Their Relevant Assertions

AS 2110.60 provides risk factors relevant to the identification of significant accounts and disclosures and their relevant assertions. The proposed amendment to AS 2110.60 provided the auditor with additional risk factors that are relevant to identifying significant accounts and disclosures involving accounting estimates, including (1) the degree of uncertainty associated with the future occurrence or outcome of events and conditions underlying the assumptions; (2) the complexity of the process for developing the accounting estimate; (3) the number and complexity of significant assumptions associated with the process; (4) the degree of subjectivity associated with significant assumptions (for example, because of significant changes in the related events and conditions or a lack of available observable inputs); and (5) if forecasts are important to the estimate, the length of the forecast period and degree of uncertainty regarding trends affecting the forecast.

One commenter suggested including additional factors such as (1) the extent to which the process involves specialized skills or knowledge; (2) the complexity of the data used for developing the accounting estimate, including the difficulty, if any, in obtaining

relevant and reliable data and maintaining the integrity of the data; and (3) the potential for management bias. Another commenter questioned whether the Board intends management bias to extend beyond a fraud risk, suggesting the requirement highlight management bias as a specific risk factor. A different commenter asked for clarification on how instances of high measurement uncertainty are contemplated.

One commenter sought clarity on whether the above risk factors are intended to be considered when identifying and assessing the risks of material misstatement related to accounting estimates (in addition to identifying significant accounts and disclosures).

The amendment to AS 2110.60 is adopted as proposed. The additional risk factors included in the amendment describe those characteristics and conditions that are associated with accounting estimates and that can affect the auditor's determination of the likely sources of potential misstatement. While the factors assist the auditor in identifying significant accounts and disclosures and their relevant assertions, these factors also prompt auditors to appropriately assess the associated risks in the related accounts and disclosures and develop appropriate audit responses. As discussed above, AS 2810 requires the auditor to evaluate management bias and its effect on the financial statements. In circumstances where management bias gives rise to a fraud risk, the auditor looks to the requirements of AS 2301 to respond to those risks.

The factors were not expanded to include extent of specialized skills used, potential for management bias, or complexity of the data used, as suggested by one commenter. These characteristics are already captured within the factors presented in the amendment or elsewhere in the risk assessment standards. For example, assessing the complexity of the process for developing an accounting estimate would necessarily



include understanding the data and assumptions that are used within the process. Further, as discussed above, the new standard and related amendments recognize that the degree of uncertainty associated with some estimates affect the assessed risks and direct auditors to plan and perform audit procedures to respond to those risks.

*Amendments to AS 2301, The Auditor's Responses to the Risks of Material Misstatement*

The proposal included a note to AS 2301.36 emphasizing that performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.

Commenters did not express concerns with the proposed amendment. However, some commenters called for additional guidance on identifying and testing relevant controls over accounting estimates. For example, one commenter suggested guidance related to auditor consideration of management controls over selection and supervision of a company specialist. Another commenter suggested additional guidance on identification and testing of relevant controls, and identification and response to risks of material misstatement due to fraud in relation to auditing estimates. This commenter expressed the view that testing the operating effectiveness of controls, including controls over complex models or methods used, can be critical in auditing accounting estimates and, in some circumstances, may be required (e.g., in situations in which substantive procedures alone do not provide sufficient appropriate evidence).

The auditor's responsibilities for testing controls are addressed in AS 2110, AS 2301, and AS 2201, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements*. These requirements would apply to

controls over accounting estimates. Nonetheless, in the Board's view, providing additional direction on the need to test controls related to accounting estimates could help promote an appropriate audit response in cases where only a financial statement audit is performed. Accordingly, after consideration of comments, the Board is amending AS 2301.17 to include a note reminding auditors that for certain accounting estimates involving complex models or processes, it might be impossible to design effective substantive tests that, by themselves, would provide sufficient appropriate evidence regarding relevant assertions.

The amendment to AS 2301.36 is also adopted as proposed.

*Amendments to AS 2401, Consideration of Fraud in a Financial Statement Audit*

To better align requirements with the scope of the proposed standard, the proposed amendment to AS 2401.64 would have deleted reference to "significant accounting estimates reflected in the financial statements" and clarified that, when an auditor performs a retrospective review, the review should be performed for accounting estimates in significant accounts and disclosures. The proposed amendment would also have clarified that the retrospective review involves a comparison of the prior year's estimates to actual results, if any, to determine whether management's judgments and assumptions relating to the estimates indicate a possible bias on the part of management.

Some commenters expressed concern that the proposed amendment would expand the population of accounting estimates subject to retrospective review, resulting in excessive work. Other commenters suggested either including the requirement to perform a retrospective review within the proposed standard, or providing a clearer linkage between the proposed standard and the requirements for retrospective review in AS 2401.

One commenter suggested a requirement to evaluate the accuracy of management's prior estimates going back a minimum of three years.

After consideration of comments, the amendment to AS 2401.64 was revised to further clarify that the accounting estimates selected for testing should be those for which there is an assessed fraud risk. The scope of the retrospective review, as amended, is better aligned with the new standard and focuses the auditor on accounting estimates already identified through the risk assessment process as being susceptible to material misstatement due to fraud.

A separate requirement for performing a retrospective review is not necessary in the new standard as the requirement in AS 2401 would achieve the same objective. Further, for some estimates, the outcome of the estimate may not be known within a reporting period to facilitate such a review. Similarly, requiring a review over multi-year period would not be feasible for some estimates. Obtaining an understanding of the company's process for developing an estimate would necessarily provide information about the company's ability to make the estimate. In addition, the new standard requires the auditor to evaluate whether the company has a reasonable basis for significant assumptions used in accounting estimates.

#### Comparison with Standards of Other Standard Setters

ISA 540 Revised requires the auditor to review the outcome of previous accounting estimates, or, where applicable, their subsequent re-estimation to assist in identifying and assessing the risks of material misstatement in the current period. The auditor shall take into account the characteristics of the accounting estimates in determining the nature and extent of that review. The review is not intended to call into

question judgments about previous period accounting estimates that were appropriate based on the information available at the time they were made.

AU-C Section 540 includes a similar requirement.

*Amendment to AS 2805, Management Representations*

The proposed amendment to AS 2805.06 would require the auditor to obtain specific representations related to accounting estimates in connection with an audit of financial statements presented in conformity with generally accepted accounting principles. Consistent with the fair value standard, the auditor would obtain representations about the appropriateness of the methods, the consistency in application, the accuracy and completeness of data, and the reasonableness of significant assumptions used by the company in developing accounting estimates. Commenters did not address the requirement and the Board has adopted this amendment as proposed.

*Amendment to Rescind AI 16, Auditing Accounting Estimates: Auditing Interpretations of AS 2501*

As discussed in the proposal, the Board is rescinding AI 16. That interpretation addresses performance and reporting guidance related to fair value disclosures, primarily voluntary disclosures including fair value balance sheets. Fair value disclosure requirements in the accounting standards have changed since the issuance of this interpretation, and fair value balance sheets covered by the interpretation are rarely included in issuer financial statements. Accordingly, this interpretation is unnecessary. Commenters did not object to rescinding this interpretation.

*Effective Date*

The Board determined that AS 2501 (Revised) and related amendments will take effect, subject to approval by the SEC, for audits of financial statements for fiscal years ending on or after December 15, 2020.

The Board sought comment on the amount of time auditors would need before the proposed standard and amendments would become effective, if adopted by the Board and approved by the SEC. A number of commenters recommended that the Board provide an effective date two years after SEC approval, which they asserted would give firms the necessary time to update firm methodologies, develop and implement training, and ensure effective quality control process to support implementation. Some commenters supported an earlier effective date, with one commenter indicating that the proposed standard should be effective contemporaneously with the implementation of the new accounting standard on credit losses. One commenter also suggested a phased in approach for EGCs. Two commenters noted that the proposal should be effective at the same time as any amendments related to the auditor's use of the work of specialists.

While recognizing other implementation efforts, the effective date determined by the Board is designed to provide auditors with a reasonable period of time to implement the new standard and related amendments, without unduly delaying the intended benefits resulting from these improvements to PCAOB standards. The effective date is also aligned with the effective date of the amendments being adopted in the Specialists Release.

D. Economic Considerations and Application to Audits of Emerging Growth Companies

The Board is mindful of the economic impacts of its standard setting. The economic analysis describes the baseline for evaluating the economic impacts of the new

standard, analyzes the need for the changes adopted by the Board, and discusses potential economic impacts of the new standard and related amendments, including the potential benefits, costs, and unintended consequences. The analysis also discusses the alternatives considered. There are limited data and research findings available to estimate quantitatively the economic impacts of discrete changes to auditing standards in this area, and furthermore, no additional data was identified by commenters that would allow the Board to generally quantify the expected economic impacts (including expected incremental costs related to the proposal) on audit firms or companies. Accordingly, the Board's discussion of the economic impact is qualitative in nature.

The Board sought information relevant to economic consequences over the course of the rulemaking. The Board has considered all the comments received and has developed an economic analysis that evaluates the potential benefits and costs of the final requirements and facilitates comparison to alternative actions considered.

Commenters who discussed the economic analysis in the Board's proposal provided a range of views. A number of commenters agreed with the economic analysis relating to the need for the proposal. Some commenters agreed with the potential benefits outlined in the proposal, including an increase in investor confidence and consistency in the application of requirements. At the same time, other commenters cautioned against raising expectations among investors about the impact of the proposal on audit quality by noting various inherent limitations that the auditor faces in auditing estimates. A number of commenters suggested that additional audit work required by the new standard would increase cost without necessarily improving audit quality related to auditing estimates. In

addition, some commenters expressed concern that some of the increase in cost might be passed through to companies in the form of increased audit fees.

### Baseline

Section C above discusses the Board's current requirements for auditing accounting estimates, including fair value measurements, and current practices in the application of those requirements. This section expands on the current practices of the profession and currently observed patterns.

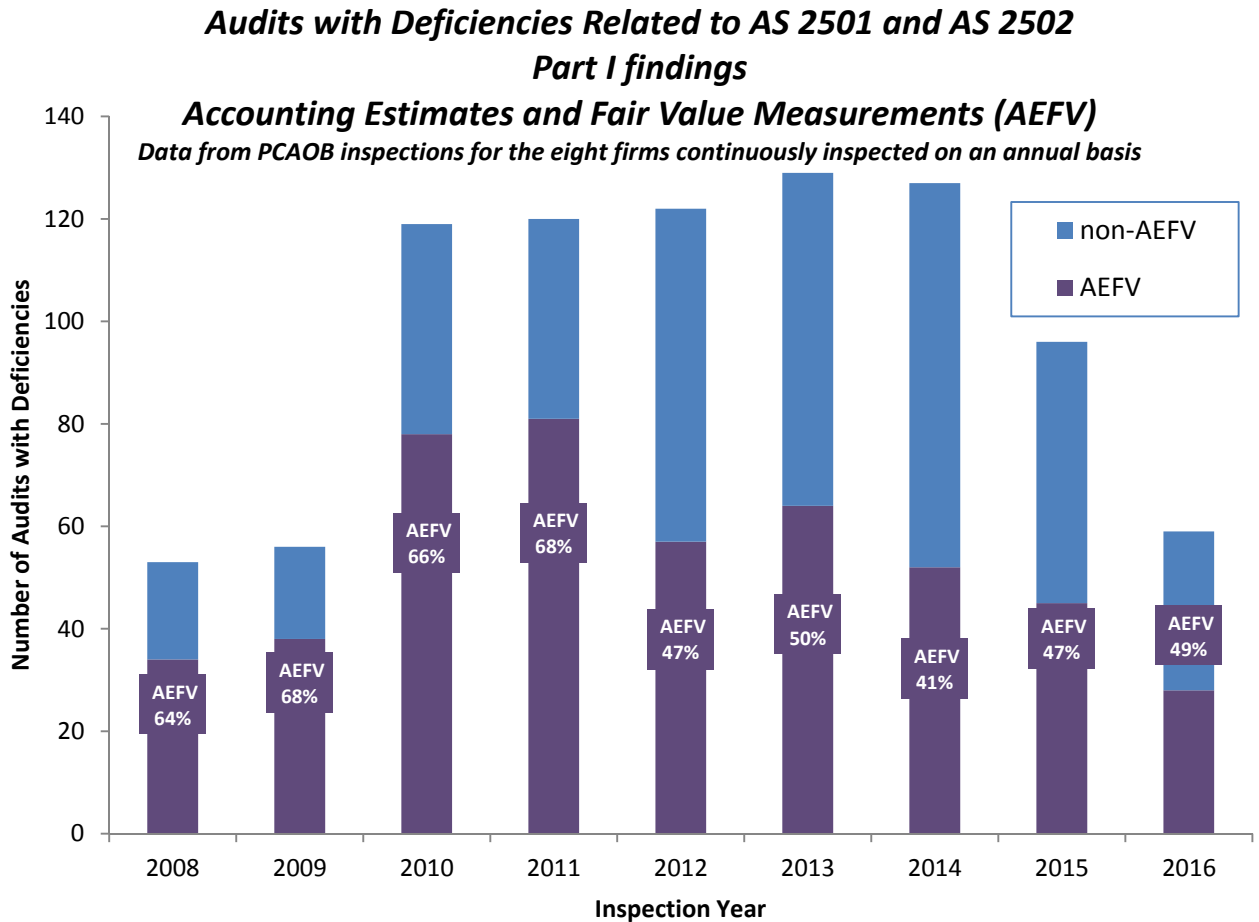
As discussed in Section C, the PCAOB has historically observed numerous deficiencies in auditing accounting estimates. PCAOB staff gathered data from reported inspection findings related to issuer audits between 2008 and 2016 for the eight accounting firms that have been inspected every year since the PCAOB's inspection program began.<sup>92</sup> The chart below shows the number of audits with deficiencies related to the accounting estimates standard and fair value standard based on the 2008–2016 reported inspection findings<sup>93</sup> for those eight firms.<sup>94</sup>

---

<sup>92</sup> The eight accounting firms are BDO USA, LLP; Crowe Horwath LLP; Deloitte & Touche LLP; Ernst & Young LLP; Grant Thornton LLP; KPMG LLP; PricewaterhouseCoopers, LLP; and RSM US LLP (formerly McGladrey, LLP).

<sup>93</sup> Deficiencies related to the derivatives standard were infrequent over the inspection period reviewed, and therefore considered insignificant for purposes of this analysis.

<sup>94</sup> The chart identifies the audits with deficiencies reported in the public portion of inspection reports. It shows the relative frequency of audits with deficiencies citing the existing accounting estimates standard or the existing fair value standard compared to the total audits with deficiencies for that year. For example, in inspection year 2010, 66% of all audits with deficiencies had at least one deficiency related to the accounting estimates standard or the fair value standard (total 2016 reported inspection findings are based on preliminary results).



Audits that had deficiencies related to the estimates standards represent a significant number of total audits with deficiencies (including deficiencies in audits of internal control over financial reporting) although the overall percentage has declined since 2011.<sup>95</sup> This is consistent with a recent PCAOB Staff Inspection Brief, which observed that during the 2016 inspection cycle, inspections staff continued to find high

<sup>95</sup> PCAOB inspection reports for the same eight firms covering the inspection period from 2004 to 2009 similarly found deficiencies in auditing fair value measurements, including impairments and other estimates. *See also* Bryan Church and Lori Shefchik, *PCAOB Inspections and Large Accounting Firms*, 26 Accounting Horizons 43 (2012).



numbers of deficiencies and "identify instances in which auditors did not fully understand how the issuer's estimates were developed or did not sufficiently test the significant inputs and evaluate the significant assumptions used by management."<sup>96</sup>

Given the pattern of the data, one can conclude that, although deficiencies were increasing in the early periods, more recently they have declined. Despite this recent decline, the deficiencies have remained high over an extended period.

Accounting estimates are prevalent and significant in financial reporting, as confirmed by academic research and supported with empirical evidence. For example, Griffith et al. note that complex accounting estimates, including fair value measurements, impairments, and valuation allowances, are increasingly important to financial statements.<sup>97</sup> In addition, some studies provide evidence on the significance of accounting estimates by using large samples of critical accounting policy ("CAP") disclosures and critical accounting estimate ("CAE") disclosures.<sup>98</sup> Levine and Smith, using a large sample of CAP disclosures from annual filings, estimate that on average issuers disclose 6.46 policies as critical, with a median of 6.<sup>99</sup> Their analysis shows that

---

<sup>96</sup> See PCAOB Staff Inspection Brief, *Preview of Observations from 2016 Inspections of Auditors of Issuers*, at 7. For a more detailed discussion of observations from audit inspections, see Section C.

<sup>97</sup> See Emily Griffith, Jacqueline S. Hammersley, Kathryn Kadous, and Donald Young, *Auditor Mindsets and Audits of Complex Estimates*, 53 *Journal of Accounting Research* 49 (2015).

<sup>98</sup> *Disclosure in Management's Discussion and Analysis about the Application of Critical Accounting Policies*, Release No. 33-8098 (May 10, 2002), 67 FR 35619 (May 20, 2002); and *Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations*, Release No. 33-8350.

<sup>99</sup> See Carolyn B. Levine and Michael J. Smith, *Critical Accounting Policy*

issuers most frequently disclose policies relating to fair value measurements and estimates.<sup>100</sup> Glendening, in his 2017 study, uses a large sample of CAE disclosures data covering 2002-2010 and finds that on average about half of the issuers in his sample disclose such estimates every year, with the disclosure rate increasing over time.<sup>101</sup> In Glendening's sample, on average, firms disclose between two and three critical accounting estimates. Also, commenters generally agreed with the characterization that financial reporting has continued to require more accounting estimates that involve complex processes and have a significant impact on companies' operating results and financial positions.

Academic research also confirms the challenges auditors face in auditing estimates, including fair value measurements. Griffith et al., in providing a brief summary of the relevant literature, note that, while accounting estimates are increasingly important to financial statements, auditors experience "difficulty in auditing complex estimates, suggesting that audit quality may be low in this area."<sup>102</sup> Martin, Rich, and Wilks attribute much of the difficulty in auditing fair value measurements to estimation based on future conditions and events and also note that auditors face many of the same challenges when auditing other accounting estimates.<sup>103</sup> Cannon and Bedard, using a

---

*Disclosures*, 26 *Journal of Accounting, Auditing & Finance* 39, 48 (2011).

<sup>100</sup> *Id.* at 49–50.

<sup>101</sup> See Matthew Glendening, *Critical Accounting Estimate Disclosures and the Predictive Value of Earnings*, 31 (4) *Accounting Horizons* 1, 12 (2017).

<sup>102</sup> See Griffith et al., *Auditor Mindsets and Audits of Complex Estimates* 50.

<sup>103</sup> See Roger D. Martin, Jay S. Rich, and T. Jeffrey Wilks, *Auditing Fair*

survey of auditors, find that features such as "management assumptions, complexity, subjectivity, proprietary valuations, and a lack of verifiable data...all contribute to the challenges in auditing [fair value measurements]." <sup>104</sup> Other studies point to the lack of sufficient knowledge on the part of auditor or management as a contributing factor to auditing challenges. Griffith et al. report that "[i]nsufficient valuation knowledge is problematic in that relatively inexperienced auditors, who also likely lack knowledge of how their work fits into the bigger picture, perform many audit steps, even difficult ones such as preparation of independent estimates." <sup>105</sup> Glover et al. find similar issues with expertise from management's side, with results that indicate that a majority of audit partners participating in their survey reported encountering problems with "management's lack of valuation process knowledge." <sup>106</sup>

In addition to the findings regarding auditing challenges, academic research provides evidence on auditors' use of the available approaches for testing an accounting estimate. A study by Griffith et al. suggests that, among the three approaches available under current standards, auditors primarily choose to test management's process, rather

---

*Value Measurements: A Synthesis of Relevant Research*, 20 Accounting Horizons 287, 289 (2006).

<sup>104</sup> See Nathan Cannon and Jean C. Bedard, *Auditing Challenging Fair Value Measurements: Evidence from the Field*, 92 The Accounting Review 81, 82 (2017).

<sup>105</sup> See Emily Griffith, Jacqueline S. Hammersley, and Kathryn Kadous, *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*, 32 Contemporary Accounting Research 833, 836 (2015).

<sup>106</sup> See Steven M. Glover, Mark H. Taylor, and Yi-Jing Wu, *Current Practices and Challenges in Auditing Fair Value Measurements and Complex Estimates: Implications for Auditing Standards and the Academy*, 36 Auditing: A Journal of Practice & Theory 63, 82 (2017).

than use subsequent events or develop an independent estimate.<sup>107</sup> In doing so, some auditors tend to verify management's assertions on a piecemeal basis; the authors of the study argue that this may result in overreliance on management's process rather than a critical analysis of the estimate. Another study by Glover et al., however, finds that auditors primarily use the approach of testing management's process when auditing lower-risk or typical complex estimates and are more likely to use a combination of substantive approaches as the complexity and associated risk of the estimate increase.<sup>108</sup>

#### Need for the Rulemaking

From an economic perspective, the primary reasons to improve PCAOB standards for auditing accounting estimates are as follows:

- The subjective assumptions and measurement uncertainty of accounting estimates make them susceptible to potential management bias. The Board believes that PCAOB standards related to auditing accounting estimates

---

<sup>107</sup> See Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice* 841.

<sup>108</sup> See Glover et al., *Current Practices and Challenges in Auditing Fair Value Measurements and Complex Estimates: Implications for Auditing Standards and the Academy* 65. See also Cannon and Bedard, *Auditing Challenging Fair Value Measurements: Evidence from the Field* 81, 82-83. Glover et al. provide additional insight regarding auditor's selection of substantive testing approaches, specifically, the use of developing independent estimates and reviewing subsequent events and transactions. Glover et al., *Current Practices and Challenges in Auditing Fair Value Measurements and Complex Estimates: Implications for Auditing Standards and the Academy* 69, 71. The study shows that, in developing independent estimates, availability of independent data, availability of verifiable data, and the reliability of management's estimates are the most commonly cited factors that drive auditors' decisions to use management's versus the audit team's assumptions. Regarding the use of reviewing subsequent events and transactions, over 96% of the participating auditors in the study report using the most recent trades that have occurred in the market to support the fair values of recorded securities.

will be improved by emphasizing the application of professional skepticism, including addressing potential management bias. Although the risk assessment standards and certain other PCAOB standards address professional skepticism and management bias, the estimates standards provide little or no specific direction on how to address those topics in the context of auditing accounting estimates.

- Existing requirements do not provide specific direction about how to evaluate the relevance and reliability of pricing information from third parties and might have led to additional work and cost for some audits. PCAOB standards should be improved by revising the requirements in this area to drive a level of work effort commensurate with both the risks of material misstatement in the valuation of financial instruments and the relevance and reliability of the evidence obtained.
- The differences among the three existing estimates standards suggest that revising PCAOB standards to set forth a more uniform, risk-based approach to auditing estimates should lead to improvements in auditing practices in responding to the risks of material misstatement in accounting estimates, whether due to error or fraud.

Economic theory provides an analytical framework for the Board's consideration of these potential needs, as discussed below.

#### *Principal-Agent Problems and Bounded Rationality*

Principal-agent theory is commonly used to describe the economic relationship between investors and managers, and the attendant information and incentive problems

that result from the separation of ownership and control.<sup>109</sup> The presence of information asymmetry<sup>110</sup> in such a principal-agent relationship results in an inherent incentive problem (moral hazard)<sup>111</sup> where the objectives of the agent (management) may differ from the objectives of the principal (investors), such that the actions of management may be suboptimal from the investors' perspective. For example, academic research suggests that management may engage in earnings management, in which they choose reporting methods and estimates that do not adequately reflect their companies' underlying economics, for a variety of reasons, including to increase their own compensation and job security.<sup>112</sup> The information asymmetry between investors and managers also leads to an

---

<sup>109</sup> For studies of principal-agent relationships and the attendant information and incentive problems in the context of the separation of ownership and control of public companies and its implications in financial markets, *see, e.g.*, Michael C. Jensen and William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 *Journal of Financial Economics* 305 (1976).

<sup>110</sup> Economists often describe "information asymmetry" as an imbalance, where one party has more or better information than another party. For a discussion of the concept of information asymmetry, *see, e.g.*, George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 *The Quarterly Journal of Economics* 488 (1970).

<sup>111</sup> The moral hazard problem is also referred to as a hidden action, or agency problem in economics literature. The term "moral hazard" refers to a situation in which an agent could take actions (such as not working hard enough) that are difficult to monitor by the principal and would benefit the agent at the expense of the principal. To mitigate moral hazard problems, the agent's actions need to be more closely aligned with the interests of the principal. Monitoring is one mechanism to mitigate these problems. *See, e.g.*, Bengt Holmström, *Moral Hazard and Observability*, 10 *The Bell Journal of Economics* 74 (1979).

<sup>112</sup> *See* Paul M. Healy and James M. Wahlen, *A Review of the Earnings Management Literature and Its Implications for Standard Setting*, 13 (4) *Accounting Horizons* 365 (1999). For a seminal work on the agency problem between managers and investors, *see* Jensen and Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*.

information problem (adverse selection)<sup>113</sup> resulting in a higher cost of capital,<sup>114</sup> because investors may not be able to accurately assess the quality of management or of management reporting.

In addition to the potential incentive problem, cognitive biases, such as management optimism or overconfidence, can manifest themselves in managerial behavior.<sup>115</sup> The academic literature suggests that individuals often overstate their own capacity and rate their attributes as better than average.<sup>116</sup> Moreover, evidence indicates that, on average, CEOs and CFOs tend to be more optimistic than the broader

---

<sup>113</sup> Adverse selection (or hidden information) problems can arise in circumstances where quality is difficult to observe, including in principal-agent relationships where the principal's information problem means it cannot accurately assess the quality of the agent or the agent's work. In addition to diminishing the principal's ability to optimally select an agent, the problem of adverse selection can manifest in markets more broadly, leading to an undersupply of higher-quality products. For a discussion of the concept of adverse selection, see, e.g., Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*.

<sup>114</sup> See, e.g., Richard A. Lambert, Christian Leuz, and Robert E. Verrecchia, *Information Asymmetry, Information Precision, and the Cost of Capital*, 16 (1) Review of Finance 1, 21 (2012).

<sup>115</sup> For a discussion of the manifestation of overconfidence in managerial behavior, see, e.g., Anwer S. Ahmed and Scott Duellman, *Managerial Overconfidence and Accounting Conservatism*, 51 (1) Journal of Accounting Research 1 (2013); Itzhak Ben-David, John R. Graham, and Campbell R. Harvey, *Managerial Miscalibration*, 128 (4) The Quarterly Journal of Economics 1547 (2013); and Catherine M. Schrand and Sarah L.C. Zechman, *Executive Overconfidence and the Slippery Slope to Financial Misreporting*, 53 Journal of Accounting and Economics 311, 320 (2012).

<sup>116</sup> This and other biases are discussed in, among others, Gilles Hilary and Charles Hsu, *Endogenous Overconfidence in Managerial Forecasts*, 51 Journal of Accounting and Economics 300 (2011).

population.<sup>117</sup> For example, managerial overconfidence has been linked to aggressive earnings forecasts by management.<sup>118</sup>

Given the degree of subjectivity in many financial statement estimates, these incentive and information issues, coupled with cognitive biases, present particular problems in the context of estimates. Managerial biases (conscious or otherwise) may lead managers to pick a more favorable estimate within the permissible range.<sup>119</sup> That is, incentive problems and cognitive biases may push management toward the most favorable estimates, either with respect to specific accounts or in the overall presentation.

Audits are one of the mechanisms for mitigating the information and incentive problems arising in the investor-management relationship.<sup>120</sup> Audits are intended to provide a check of management's financial statements, and thus reduce management's potential incentive to prepare and disclose biased or inaccurate financial statements.

---

<sup>117</sup> See John R. Graham, Campbell R. Harvey, and Manju Puri, *Managerial Attitudes and Corporate Actions*, 109 *Journal of Financial Economics* 103, 104 (2013). Managerial attitude has been linked to a variety of corporate decisions, including corporate investment and mergers & acquisitions. See Ulrike Malmendier and Geoffrey Tate, *CEO Overconfidence and Corporate Investment*, 60 *The Journal of Finance* 2661 (2005); and Ulrike Malmendier and Geoffrey Tate, *Who Makes Acquisitions? CEO Overconfidence and the Market's Reaction*, 89 *Journal of Financial Economics* 20 (2008).

<sup>118</sup> See Paul Hribar and Holly Yang, *CEO Overconfidence and Management Forecasting*, 33 *Contemporary Accounting Research* 204 (2016).

<sup>119</sup> For purposes of this discussion, a "favorable" estimate can reflect either an upward or a downward bias, for example in earnings, depending on management incentives.

<sup>120</sup> See Paul M. Healy and Krishna G. Palepu, *Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature*, 31 *Journal of Accounting and Economics* 405, 406 (2001). See also Mark DeFond and Jieying Zhang, *A Review of Archival Auditing Research*, 58 *Journal of Accounting and Economics* 275 (2014).



Audit reports and auditing standards provide information to the market that may affect perceptions about the reliability of the financial statements and therefore mitigate investors' information problem, potentially lowering the company's cost of capital.<sup>121</sup>

The auditor is also an agent of investors, however, and the information asymmetry between investors and auditors can also give rise to risks of moral hazard and adverse selection. Auditors have incentives that align their interests with those of investors, such as legal considerations, professional responsibilities, and reputational concerns. However, they may also have incentives to behave sub-optimally from investors' point of view by, for example, (1) not sufficiently challenging management's estimates or underlying assumptions in order not to disturb the client relationship; (2) shirking, if they are not properly incentivized to exert the effort considered optimal by shareholders; or (3) seeking to maximize profits and/or minimize costs—sometimes at the expense of audit quality. As a result of such misaligned incentives, auditors may engage in practices that do not align with investors' needs and preferences.

In addition to the auditor's potential moral hazard problem, the presence of bounded rationality can inject another layer of challenges into auditing estimates. In economic theory, bounded rationality refers to the idea that when individuals make decisions, their rationality may be limited by certain bounds, such as limits on available information, limits on analytical ability, limits on the time available to make the decision,

---

<sup>121</sup> See, e.g., Richard A. Lambert, Christian Leuz, and Robert E. Verrecchia, *Accounting Information, Disclosure, and the Cost of Capital*, 45 *Journal of Accounting Research* 385 (2007).

and inherent cognitive biases.<sup>122</sup> Even if incentives between principal and agent are aligned, the agent, being boundedly rational, may be unable to execute appropriately. Hence, some auditors may find auditing certain estimates challenging because, like all individuals, they may have limits on their ability to solve complex problems and to process information,<sup>123</sup> especially when faced with time constraints.<sup>124</sup> Research has shown that even sell-side research analysts, generally understood to be sophisticated financial experts, have trouble assessing the impact on earnings of companies' derivative instruments, where the associated financial reporting involves fair value measurements.<sup>125</sup>

---

<sup>122</sup> For a seminal work in this field, see Herbert A. Simon, *A Behavioral Model of Rational Choice*, 69 *The Quarterly Journal of Economics* 99 (1955). Simon introduced this theory and argued that individuals cannot assimilate and process all the information that would be needed to maximize their benefits. Individuals do not have access to all the information required to do so, but even if they did, they would be unable to process it properly, since they are bound by cognitive limits.

<sup>123</sup> Daniel Kahneman refers to the mind as having two systems, System 1 and System 2. "System 1 operates automatically and quickly..." System 2 is the slower one that "can construct thoughts in an orderly series of steps." System 2 operations "require attention and are disrupted when attention is drawn away." Daniel Kahneman, *Thinking, Fast and Slow* 4, 20–22 (1st ed. 2011). Examples of System 2 operations include "[f]ill[ing] out a tax form" and "[checking] the validity of a complex logical argument," both of which require time and attention. Without time, one cannot dedicate attention to a task and fully engage System 2, and hence is left with the automatic instinctual operation of System 1, which can lead to use of rules of thumb (heuristics) and "biases of intuition." *Id.*

<sup>124</sup> Time is an essential limitation to problem solving, being fundamental to the definition of bounded rationality—"[t]he principle that organisms have limited resources, such as time, information, and cognitive capacity, with which to find solutions to the problems they face." Andreas Wilke and R. Mata, *Cognitive Bias*, as published in *The Encyclopedia of Human Behavior* 531 (2nd ed. 2012).

<sup>125</sup> See Hye Sun Chang, Michael Donohoe, and Theodore Sougiannis, *Do Analysts Understand the Economic and Reporting Complexities of Derivatives?* 61

In the context of auditing estimates, one such bound may be the ability of auditors to analyze and integrate different existing standards or process the information required to audit estimates that involve complex processes, which may require sophisticated analytical and modeling techniques. In the presence of bounded rationality, individuals may resort to heuristics (i.e., rules of thumb).<sup>126</sup> In particular, auditors facing challenges in auditing an accounting estimate may resort to simplifications that might increase the potential for biases or errors that have seeped into financial statements to go undetected.<sup>127</sup>

The literature has linked cognitive issues to auditors' actions and attitudes, specifically to professional skepticism.<sup>128</sup> For example, "research in psychology and

---

Journal of Accounting and Economics 584 (2016). For a discussion of the bounded rationality of audit judgments, see Brian Carpenter and Mark Dirsmith, *Early Debt Extinguishment Transactions and Auditor Materiality Judgments: A Bounded Rationality Perspective*, 17 (8) Accounting, Organizations and Society 709, 730 (1992) ("[T]he self-reported actions taken by auditors on actual engagements appear to reveal less complexity in the sense that they are boundedly rational and tend to emphasize only a single judgment criterion than do the cognitive judgment processes of which they are capable.").

<sup>126</sup> "The essence of bounded rationality is thus to be a 'process of thought' rather than a 'product of thought': Individuals have recourse to reasonable procedures rather than to sophisticated computations which are beyond their cognitive capacities." Bertrand Munier, Reinhard Selten, D. Bouyssou, P. Bourguine et al., *Bounded Rationality Modeling*, 10 Marketing Letters 233, 234 (1999). In "[s]ituations where evolved task-general procedures are helpful (heuristics, chunks)...agents have difficulty finding even qualitatively appropriate responses...agents are then left with heuristics..." *Id.* at 237.

<sup>127</sup> For a discussion and examples of heuristics used by auditors, see, e.g., Stanley Biggs and Theodore Mock, *An Investigation of Auditor Decision Processes in the Evaluation of Internal Controls and Audit Scope Decisions*, 21 (1) Journal of Accounting Research 234 (1983).

<sup>128</sup> Nelson argues that "[p]roblem-solving ability, ethical predisposition, and other traits like self-confidence and tendency to doubt are all related to [professional

accounting has identified that auditors' judgments are vulnerable to various problems, such as difficulty recognizing patterns of evidence, applying prior knowledge to the current judgment task, weighting evidence appropriately, and preventing incentives from affecting judgment in unconscious ways."<sup>129</sup> As a result, cognitive limitations may pose a threat to professional skepticism<sup>130</sup> and "[b]ias-inducing tendencies can lead even the brightest, most experienced professionals, including auditors, to make suboptimal judgments."<sup>131</sup> Accordingly, the existence of bounded rationality and, in particular, some inherent cognitive biases might affect auditor judgment when auditing accounting estimates, even separate from any potential conflict of interest.

Some of the biases that might affect auditors include, but are not limited to:

- Anchoring Bias—decision makers anchor or overly rely on specific information or a specific value and then adjust to that value to account for other elements of the circumstance, so that there is a bias toward that

---

skepticism] in judgment and action," and, furthermore "[c]ognitive limitations affect [professional skepticism] in predictable ways." Mark Nelson, *A Model and Literature Review of Professional Skepticism in Auditing*, 28 *Auditing: A Journal of Practice & Theory* 1, 2 (2009).

<sup>129</sup> *Id.* at 6.

<sup>130</sup> "[A]uditors' judgments can be flawed because, like all people, sometimes they do not consistently follow a sound judgment process and they fall prey to systematic, predictable traps and biases. People, including experienced professionals ... often unknowingly use mental "shortcuts" ... to efficiently navigate complexity...[S]ituations can arise where they systematically and predictably lead to suboptimal judgments and potentially inhibit the application of appropriate professional skepticism." Steven M. Glover and Douglas F. Prawitt, *Enhancing Auditor Professional Skepticism* (Nov. 2013) (a report commissioned by the Standards Working Group of the Global Public Policy Committee), at 10.

<sup>131</sup> *Id.*

value. In the auditing of estimates, the potential exists for anchoring on management's estimates.<sup>132</sup> This can be seen as a manifestation of findings that auditors may, at times, experience difficulties weighting evidence appropriately.<sup>133</sup>

- Confirmation Bias—a phenomenon wherein decision makers have been shown to actively seek out and assign more weight to evidence that confirms their hypothesis, and ignore or underweight evidence that could disconfirm their hypothesis. As such, confirmation bias can be thought of as a form of selection bias in collecting evidence. It becomes even more problematic in the presence of anchoring bias, since auditors may anchor on management's estimate and may only seek out information to corroborate that value (or focus primarily on confirming, rather than challenging, management's model).<sup>134</sup> For example, in the accounting estimates standard, as one of the available three approaches in evaluating the reasonableness of an estimate, the auditor is instructed to "develop an

---

<sup>132</sup> For a discussion on anchoring biases and some evidence, *see, e.g.*, Robert Sugden, Jiwei Zheng, and Daniel John Zizzo, *Not All Anchors Are Created Equal*, 39 *Journal of Economic Psychology* 21 (2013).

<sup>133</sup> Nelson, *A Model and Literature Review of Professional Skepticism in Auditing* 6.

<sup>134</sup> For a discussion of confirmation bias, *see, e.g.*, Raymond S. Nickerson, *Confirmation Bias: A Ubiquitous Phenomenon in Many Guises*, 2 *Review of General Psychology* 175 (1998). For a discussion of the manifestation of this bias in auditing, *see, e.g.*, Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*.

independent expectation of the estimate to *corroborate* the reasonableness of management's estimate" (emphasis added).<sup>135</sup>

- Familiarity Bias—"Familiarity is associated with a general sense of comfort with the known and discomfort with—even distaste for and fear of—the alien and distant."<sup>136</sup> In the context of auditing accounting estimates, auditors may be biased toward procedures, methods, models, and assumptions that seem more familiar to them, and auditors' familiarity with management may lead them to tend to accept management's assertions without sufficient challenge or consideration of other options.<sup>137</sup>

All of these cognitive biases would pose a threat to the proper application of professional skepticism and an appropriate focus on the potential for management bias in accounting estimates. Academic research illustrates how cognitive biases may affect auditing. Griffith et al. find that auditors focus primarily on confirming, rather than challenging, management's model, and appear to accept management's model as a starting

---

<sup>135</sup> AS 2501.10b.

<sup>136</sup> Gur Huberman, *Familiarity Breeds Investment*, 14 Review of Financial Studies 659, 678 (2001).

<sup>137</sup> Academic research also argues and provides evidence that some level of auditor familiarity with the client can help the auditing process. See Wuchun Chi and Huichi Huang, *Discretionary Accruals, Audit-Firm Tenure and Audit-Partner Tenure: Empirical Evidence from Taiwan*, 1 (1) Journal of Contemporary Accounting and Economics 65, 67 (2005). Although the study does not address familiarity bias, the results indicate that auditor familiarity with the client produces higher earnings quality as it has an effect on learning experience and increases client-specific knowledge, while excessive familiarity impairs audit quality, resulting in lower earnings quality.

point and then verify aspects of that model.<sup>138</sup> None of the auditors in the study indicated that he or she considered whether additional factors beyond the assumptions made by management should be included in management's model. This type of behavior is suggestive of anchoring bias.<sup>139</sup>

Importantly, bounded rationality and the associated biases exist in addition to any incentive problems (moral hazard). Cognitive biases and moral hazard could work in the same direction to increase the likelihood of auditors agreeing with management, not considering contradictory evidence, or discounting the potential importance or validity of alternative methods, data, and assumptions. It is important for auditors to be wary of their own biases as well as management's biases when auditing accounting estimates (e.g., in order to avoid merely searching for evidence that corroborates management's assertions).<sup>140</sup>

It is also logical to conclude that the potential for bias increases in the presence of measurement uncertainty, since there is more latitude in recording an estimate in such circumstances. Academic studies find that the measurement uncertainty associated with

---

<sup>138</sup> See Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*.

<sup>139</sup> The problem resulting from this bias can be ameliorated, but not completely eliminated. The audit, by its nature, uses the company's financial statements as a starting point. For that reason, starting with management's number is often unavoidable since the auditor is opining on whether the company's financial statements are fairly presented, in all material respects, in conformity with the applicable financial reporting framework. When reference is made to anchoring bias in this release, it is therefore not intended to refer to the auditor's responsibility to start with management's financial statements, but instead to the auditor's potential failure to effectively challenge management.

<sup>140</sup> See, e.g., Martin et al., *Auditing Fair Value Measurements: A Synthesis of Relevant Research*.

accounting estimates can be substantial.<sup>141</sup> Martin, Rich, and Wilks point out that fair value measurements frequently incorporate forward-looking information as well as judgments, and that, since future events cannot be predicted with certainty, an element of judgment is always involved.<sup>142</sup> The measurement uncertainty inherent in estimates allows room for both management bias and error to affect preparers' valuation judgments, and estimates become less useful to capital market participants as they become less reliable.<sup>143</sup>

To help auditors overcome, or compensate for, potential biases and identify situations where management is consistently optimistic, and to discourage shirking, the new standard emphasizes the auditor's existing responsibility to apply professional skepticism, including addressing potential management bias. It does so by emphasizing these professional obligations in the specific context of auditing accounting estimates. It also includes revised terminology to describe the nature of the auditor's responsibility and the new requirements described in Section C to guide the auditor in the appropriate application of professional skepticism, including addressing potential management bias, when auditing estimates.

---

<sup>141</sup> See, e.g., Brant E. Christensen, Steven M. Glover, and David A. Wood, *Extreme Estimation Uncertainty in Fair Value Estimates: Implications for Audit Assurance*, 31 *Auditing: A Journal of Practice & Theory* 127 (2012); Cannon and Bedard, *Auditing Challenging Fair Value Measurements: Evidence from the Field*.

<sup>142</sup> See Martin et al., *Auditing Fair Value Measurements: A Synthesis of Relevant Research*.

<sup>143</sup> See, e.g., Russell Lundholm, *Reporting on the Past: A New Approach to Improving Accounting Today*, 13 *Accounting Horizons* 315 (1999); and Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*.



Some commenters on the proposal were supportive of a new standard taking into consideration management bias and emphasizing the application of professional skepticism while some others highlighted the difficulties in evaluating and identifying management bias in accounting estimates due to the uncertainty and subjectivity involved. Some commenters were critical of "negative" tone or overemphasis on management bias and the application of professional skepticism. Some commenters, on the other hand, recommended that the new standard further expand the discussion and emphasis of management bias and the need to challenge management's assertions. As discussed above, the Board believes that reinforcing the importance of professional skepticism when auditing estimates, in light of the potential for management bias, will remind auditors of their responsibilities to evaluate contradictory evidence and to address the effects of bias on the financial statements.

*Fostering a More Efficient Audit*

Tailoring Requirements for Different Types of Pricing Information

The new standard requires different audit procedures for the different types of third-party pricing information used for fair value measurements of financial instruments, and is intended to drive a level of work effort commensurate with both the risks of material misstatement in the valuation of financial instruments and the relevance and reliability of the evidence obtained. Existing requirements do not provide specific direction about how to evaluate the relevance and reliability of pricing information from third parties and might have led to additional work and cost for some audits and insufficient work and effort for some audits. Under the new standard, auditors will be prompted to direct more effort toward pricing information that may be more subject to

bias or error based on the type of instrument being valued and how or by whom the pricing information is generated. For certain types of third parties—specifically, pricing services and brokers or dealers—the new standard provides more specific direction.

The Board understands that pricing information generated by pricing services generally tends to have three main characteristics not shared by other estimates (1) uniformity of product (with little to no differentiation across users, so there is less risk of inherent bias); (2) work of the pricing service that, in most cases, is not prepared at the direction of a particular client; and (3) buyers of the product with little, if any, market power. These characteristics reduce the risk of bias, unless the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service. The potential for bias is further attenuated for pricing services since there is monitoring by the market as a whole, and most of the prices provided by these services are for traded securities or for securities for which quotes are available or for which similar securities are traded. Overall, the Board believes that these characteristics contribute to a lower risk of bias in information provided by pricing services relative to other estimates and warrant tailored audit requirements.

The Board believes that there also are differences between the information provided by pricing services on the one hand, and brokers or dealers on the other, that warrant differential treatment. Based on outreach and observations from the Board's oversight activities, the Board understands that pricing services tend to accumulate overall market information, rather than engage directly in market transactions, and typically have well-defined methodologies that are used consistently over time.

Therefore, they tend to provide customers with more uniform pricing information.

Brokers or dealers, on the other hand, are in the business of providing liquidity to the market (by acting as a buyer or seller) and connecting buyers and sellers. As such, it is likely their pricing is more idiosyncratic (i.e., dependent on the party asking for a quote, timing, and other factors related to the business operations of the broker or dealer) and brokers or dealers may occasionally be less transparent in pricing the instruments. In addition, not all brokers or dealers necessarily have a firm-wide methodology, as they typically provide prices on an as-requested basis. Therefore, the Board believes that auditors' consideration of pricing information obtained from a broker or dealer should differ from their consideration of pricing information from a pricing service.

The issue of different types of pricing information provided by third-party sources is addressed in the special topics appendix of the new standard. This appendix more broadly addresses auditing financial instruments and includes procedures specific to an auditor's use of evidence from third-party pricing sources. These procedures allow the auditor to use pricing information from pricing sources used by the company in some circumstances (e.g., generally in cases where the company uses a pricing service based on trades of similar instruments to value securities with a lower risk of material misstatement). This would be an appropriate risk-based audit response, since there is a lower chance of management bias when the company uses a pricing service.

One commenter who provided views on the third-party pricing information agreed that the reliability of the pricing information from the third-party pricing sources may differ and that factors covered in the proposal captured that variability. A few commenters also asserted that third-party pricing services generally provide pricing that

is free from influence of any one user of the services, and one of these commenters opined that this absence of management bias increased the relevance and reliability of the evidence. In addition, one commenter suggested inclusion of differences in valuation approaches of pricing services as an additional factor in evaluating reliability. Although the differences in valuation approaches could create biased valuations, auditors are required to evaluate the relevance and reliability of pricing information provided by pricing services.

#### Multiple Standards With Overlapping Requirements

Having multiple standards with similar approaches but varying levels of detail in procedures may create unnecessary problems. Perceived inconsistencies among existing standards may result in (1) different auditor responsibilities for accounts for which a similar audit approach would seem appropriate; (2) inconsistent application of standards; and (3) inappropriate audit responses.

Academic research speaks to the undesirable nature of overlapping standards addressing the same issue, which adds to task difficulty<sup>144</sup> and may, therefore, create unnecessary additional costs, as it is costly to sift through the standards and reconcile potential conflicts. These costs may exacerbate the principal-agent and cognitive challenges discussed above. For example, auditors might, consciously or otherwise, apply the standards in a manner that satisfies their objectives but not those of investors (e.g., auditors may choose an approach with fewer procedures and requirements to minimize

---

<sup>144</sup> See Brian Bratten, Lisa Milici Gaynor, Linda McDaniel, Norma R. Montague, and Gregory E. Sierra, *The Audit of Fair Values and Other Estimates: The Effects of Underlying Environmental, Task, and Auditor-Specific Factors*, 32 Auditing: A Journal of Practice & Theory 7, 15–16 (2013).

audit cost, or for expediency, hence maximizing their profits). The existence of overlapping requirements might also lead to uncertainty about compliance, if auditors do not understand what is required. Finally, overlapping requirements may increase perceived uncertainty about audit quality, since market participants may not fully understand what standard is being, or even should be, applied.

To address the issues stemming from having multiple, overlapping estimates standards, the new standard replaces the existing three standards related to auditing accounting estimates. Moreover, it aligns the requirements with the risk assessment standards through targeted amendments to promote the development of appropriate responses to the risks of material misstatement related to accounting estimates.

A number of commenters supported the development of a single standard to replace the three existing standards. For example, some noted that a single, consistent set of requirements aligned with the risk assessment standards would provide greater uniformity and clarity and eliminate the need to navigate among three related standards in order to ensure that all requirements were met. On the other hand, one commenter cautioned that a single standard would lead to a one-size-fits-all audit approach and not allow the tailoring of audit procedures based on the issuer-specific risks of material misstatement. By aligning with the risk assessment standards and describing the basic requirements for testing and evaluating estimates, the Board believes the new standard is designed to allow auditors to tailor their procedures in order to respond to specific risks of material misstatement.

*Lack of Market Solutions*

The issues discussed above are not, and cannot efficiently be, addressed through market forces alone because the auditor may not be fully incentivized to address them and market forces may not be effective in making the auditor more responsive to investors' concerns regarding the auditing of estimates. The auditor may not be fully incentivized because auditors may incur additional costs to produce higher audit quality but would earn lower profits on the audit, since audit quality may not be observable<sup>145</sup> and auditors may be unable to charge more for better audits.<sup>146</sup> Furthermore, because investors are diverse and geographically distributed, they face a potential collective action problem that creates additional barriers to jointly negotiating with auditors over requirements for auditing accounting estimates.

---

<sup>145</sup> An "audit is a credence service in that its quality may never be discovered by the company, the shareholders or other users of the financial statements. It may only come into question if a 'clean' audit report is followed by the collapse of the company." See Alice Belcher, *Audit Quality and the Market for Audits: An Analysis of Recent UK Regulatory Policies*, 18 Bond Law Review 1, 5 (2006). Credence services are difficult for users of the service (such as investors in the context of company audit services) to value because their benefits are difficult to observe and measure. See also Monika Causholli and W. Robert Knechel, *An Examination of the Credence Attributes of an Audit*, 26 Accounting Horizons 631 (2012).

<sup>146</sup> The general effect of cost pressures on audit quality has been studied in the academic literature with varying empirical findings. See, e.g., James L. Bierstaker and Arnold Wright, *The Effects of Fee Pressure and Partner Pressure on Audit Planning Decisions*, 18 Advances in Accounting 25 (2001); B. Pierce and B. Sweeney, *Cost–Quality Conflict in Audit Firms: An Empirical Investigation*, 13 European Accounting Review 415 (2004); and Scott D. Vandervelde, *The Importance of Account Relations When Responding to Interim Audit Testing Results*, 23 Contemporary Accounting Research 789 (2006).

For the mitigation of this collective action problem and other potential sources of market failure,<sup>147</sup> investors generally rely on auditing standards that are based on investor and public interests. PCAOB auditing standards establish performance requirements that, if not implemented, can result in costly penalties to the auditor in the form of litigation and reputational risk.

### Economic Impacts

#### Benefits

The new standard should lead to two broad categories of benefits. The first relates directly to audit quality and the second relates to fostering an efficient risk-based approach to auditing accounting estimates, including fair value measurements. The new standard strengthens auditor responsibilities for auditing accounting estimates, including fair value measurements, which should increase the likelihood that auditors detect material misstatements, and more explicitly integrates the risk assessment standards, which should encourage a uniform approach to achieve a more efficient and risk-based audit response. These improvements should enhance audit quality and, in conjunction with the clarification of the procedures the auditor should perform, should provide greater confidence in the accuracy of companies' financial statements.<sup>148</sup> From a capital market

---

<sup>147</sup> For a discussion of the concept of market failure, *see, e.g.*, Francis M. Bator, *The Anatomy of Market Failure*, 72 *The Quarterly Journal of Economics* 351 (1958); and Steven G. Medema, *The Hesitant Hand: Mill, Sidgwick, and the Evolution of the Theory of Market Failure*, 39 *History of Political Economy* 331 (2007).

<sup>148</sup> For a discussion on the relationship between audit quality and financial reporting quality, *see* DeFond and Zhang, *A Review of Archival Auditing Research* 275, 281 ("...[A]udit quality is a component of financial reporting quality, because high audit quality increases the credibility of the financial reports. This increased credibility arises through greater assurance that the financial statements faithfully reflect the [company's] underlying economics.").

perspective, an increase in the information quality of companies' financial statements resulting from improved audit quality can reduce the non-diversifiable risk to investors and generally should result in investment decisions by investors that more accurately reflect the financial position and operating results of each company, increasing the efficiency of capital allocation decisions.<sup>149</sup>

The extent of these benefits, which are discussed further below, will largely depend on the extent to which firms have to change their practices and methodologies. Benefits will be less in the case of firms that have already adopted practices and methodologies similar to the requirements being proposed.

First, the new standard should reduce the problems generated by moral hazard and potential cognitive biases by strengthening the performance requirements for auditing accounting estimates and by emphasizing the importance of addressing potential management bias and the need to maintain a skeptical mindset while auditing accounting estimates. Reinforcing the need for professional skepticism should encourage auditors, for example, to "refram[e] hypotheses so that confirmation biases favor [professional skepticism]," and thereby mitigate the effect of such biases on auditor judgment.<sup>150</sup> It

---

<sup>149</sup> See, e.g., Lambert et al., *Accounting Information, Disclosure, and the Cost of Capital*, 388 (finding that information quality directly influences a company's cost of capital and that improvements in information quality by individual companies unambiguously affect their non-diversifiable risks.); and Ahsan Habib, *Information Risk and the Cost of Capital: Review of the Empirical Literature*, 25 *Journal of Accounting Literature* 127, 128 (2006) ("[H]igh quality auditing could provide credible information in the market regarding the future prospect of the [company] and hence could reduce the cost of capital in general, and cost of equity capital in particular."). See also Jukka Karjalainen, *Audit Quality and Cost of Debt Capital for Private Firms: Evidence from Finland*, 15 *International Journal of Auditing* 88 (2011).

<sup>150</sup> Nelson, *A Model and Literature Review of Professional Skepticism in Auditing* 2. In addition, another experimental study found other factors, such as improved



should encourage auditors to be more conscious when weighing audit evidence and should reduce instances where auditors fail to consider contradictory evidence. For example, the use of terms such as "evaluate" and "compare" instead of "corroborate," and greater emphasis on auditors identifying the significant assumptions in accounting estimates should promote a more deliberative approach to auditing estimates, rather than a mechanical process of looking for evidence to support management's assertions. Academic research also provides evidence on the effect of framing in the context of auditors' fair value judgments.<sup>151</sup> In an experimental study, Cohen et al. found that when one group of auditors were instructed to "support and oppose" management's assertions, they recommended significantly different fair value estimates than another group of auditors who were instructed to "support" management's assertions.

Several commenters on the proposal supported the emphasis on professional skepticism and one commenter agreed that the new requirements would prompt auditors to devote greater attention to identifying and addressing management bias. Moreover, some commenters confirmed that raising awareness of cognitive biases and including reminders of professional skepticism could help mitigate the effects of auditors' own biases. In addition, a few commenters supported the change in terminology and agreed that it would further reinforce the application of professional skepticism by moving from

---

cognitive tools, might be necessary to enhance the use of professional judgment and critical thinking skills. See Anthony Bucaro, *Enhancing Auditors' Critical Thinking in Audits of Complex Estimates*, Accounting, Organizations and Society 1, 11 (2018).

<sup>151</sup> See Jeffrey Cohen, Lisa Gaynor, Norma Montague, and Julie Wayne, *The Effect of Framing on Information Search and Information Evaluation in Auditors' Fair Value Judgments* (Feb. 2016) (working paper, available in Social Science Research Network).

a corroborative mindset to an evaluation mindset, while one commenter expressed skepticism about the impact of terminology on auditor behavior. Some commenters noted the difficulties and limitations in evaluating and identifying management bias in accounting estimates due to the uncertainty and subjectivity involved. Given the subjective assumptions and inherent measurement uncertainty in many estimates, bias may not be eliminated entirely. However, the Board believes that a standard that reinforces the application of professional skepticism and reminds auditors of risk of management bias and their responsibilities to evaluate contradictory evidence and to address the effects of bias can help ameliorate the problems resulting from this bias.

Second, requirements specific to the use of pricing information from third parties as audit evidence should lead to a more efficient audit as these new requirements will prompt more tailored audit procedures (including by performing procedures over groups of similar instruments, where appropriate) and direct more audit effort toward pricing information that may be more subject to bias or error.

Third, in addition to achieving these efficiencies, the new standard should lead to a better allocation of auditing resources more generally by aligning more closely with the risk assessment standards, with more hours, effort, and work being dedicated to higher-risk areas. Essentially, the new standard should lead to increased audit quality for harder-to-measure estimates (e.g., estimates with high inherent subjectivity) due to enhanced procedures and should lead to an increase in efficiency for easier-to-measure and lower-risk estimates.

Fourth, uniformity of the standards should lead to benefits to auditors and users of financial statements. A single, consistent set of requirements should lead to more

consistent and efficient audits with greater comparability since there should be no doubt as to what requirements to apply, and no need to navigate among multiple standards to make sure that all relevant requirements are met. In turn, assuming that firms comply with the new requirements, this should increase and make more uniform the quality of the information presented in the financial statements. Having a uniform set of requirements might also enhance the audit committee's understanding of the auditor's responsibilities and, therefore, potentially facilitate communications between the audit committee and the auditor. Moreover, a single standard will facilitate the development of timely guidance for specific issues when needed.

Finally, establishing more clarity and specificity in requirements for estimates should lead to efficiency gains by providing auditors with a better understanding both of their duties and of the Board's expectations, reducing the risk that auditors would perform unnecessary or ineffective procedures. Hence, holding audit quality constant, auditors should gain efficiencies.

Overall, these changes should lead to greater confidence in financial statements, reducing investors' information asymmetry. Reinforcing and clarifying auditors' responsibilities should enhance investors' trust that auditors are obtaining sufficient appropriate evidence regarding management's accounting estimates, thereby increasing investors' confidence in companies' financial statements and the corresponding audit work performed. Also, the new standard may lead to fewer restatements as a result of increased audit quality for higher-risk estimates and, hence, increase investor confidence in financial statements. Increased confidence in companies' financial statements should

ameliorate investors' information asymmetry problem (adverse selection) and allow for more efficient capital allocation decisions.

Some commenters on the proposal cautioned against raising investor expectations about the impact of auditing procedures on the reliability and accuracy of accounting estimates and expressed skepticism about potential benefits related to investor confidence and audit quality. For example, citing the inherent uncertainty and judgment involved in estimates, some argued that unreasonable bias would be difficult to detect and a level of bias and uncertainty would remain irrespective of the level of audit effort. While auditing cannot eliminate the uncertainty and judgment involved in estimates, it can help identify material omissions and errors. Furthermore, even if more robust auditing procedures do not yield more accuracy and precision for each individual estimate, to the extent that any pattern of bias or error can be eliminated, this should result in more reliable financial reporting. The financial statements as a whole may not be fairly presented if the most optimistic estimates are consistently selected by the preparer even when each individual estimate is within a reasonable range. Emphasizing the risk of management bias in accounting estimates and the auditor's responsibility to apply professional skepticism can help focus auditors on the effects of management bias on financial statements.

#### Costs

The Board recognizes that imposing new requirements may result in additional costs to auditors and the companies they audit. In addition, to the extent that auditors pass on any increased costs through an increase in audit fees, companies and investors could incur an indirect cost.

Auditors may incur certain fixed costs (costs that are generally independent of the number of audits performed) related to implementing the new standard and related amendments. These include costs to update audit methodologies and tools, prepare training materials, and conduct training. Larger firms are likely to update methodologies using internal resources, whereas smaller firms are more likely to purchase updated methodologies from external vendors.

In addition, auditors may incur certain variable costs (costs that are generally dependent on the number of audits performed) related to implementing the new standard. These include costs of implementing the standard at the audit engagement level (e.g., in the form of additional time and effort spent on the audit). For example, the new standard requires, in some instances, performing more procedures related to assessing risk and testing the company's process, such as evaluating which of the assumptions used by the company are significant. This could impose additional costs on auditors and require additional management time.

Recurring costs (fixed or variable) may also increase if firms decide to increase their use of specialists in response to the final auditing requirements. If this were to occur, it may in particular affect firms that do not currently employ or engage specialists and instead rely on the work of company specialists for some of their audit engagements, potentially affecting the competitiveness of such firms for such audit engagements.<sup>152</sup>

---

<sup>152</sup> The PCAOB staff analyzed inspection data to assess the baseline for auditors' use of the work of specialists and existing practice in the application of those requirements. The PCAOB observed that the firms that do not currently employ or engage auditor's specialists and use the work of company specialists tend to be smaller audit firms. The PCAOB staff also found that smaller audit firms generally have comparatively few audit engagements in which they use the work of company specialists.

To the extent the new standard and related amendments require new or additional procedures, they may increase costs. For example, the amendment to AS 2110.52 requires the auditor to include, as part of the key engagement team members' discussion of the potential for material misstatement due to fraud, how the financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures. The new requirement focuses the auditor's attention on a risk that is particularly relevant to accounting estimates and further underscores the importance of applying professional skepticism in this area. The additional requirement could increase costs.

The new standard's impact on the auditor's fixed and variable costs will likely vary depending on, among other things, the extent to which the requirements have already been incorporated in accounting firms' audit methodologies or applied in practice by individual engagement teams. For example, the new standard sets minimum requirements when using pricing information obtained from third-party pricing sources, so audit firms that are doing less than the minimum requirements will likely experience higher cost increases. In addition, the standard's impact could vary based on the size and complexity of an audit. All else equal, any incremental costs generally are expected to be scalable: higher for larger, more complex audits than for smaller, less complex audits.

The economic impact of the new standard on larger accounting firms and smaller accounting firms may differ. For example, larger accounting firms will likely take advantage of economies of scale by distributing fixed costs (e.g., updating audit methodologies) over a larger number of audit engagements. Smaller accounting firms

---

*See the Specialists Release, supra note 2, for additional discussion.*

will likely distribute their fixed costs over fewer audit engagements. However, larger accounting firms will likely incur greater variable costs than smaller firms, because larger firms more often perform larger audits and it seems likely that these larger audits will more frequently involve accounting estimates with complex processes. It is not clear whether these costs (fixed and variable), as a percentage of total audit costs, will be greater for larger or for smaller accounting firms. One commenter on the proposal cautioned that the costs associated with implementing the new standard might be significant for some smaller firms; however, this commenter also noted that many of the smaller firms applying analogous requirements of other standard setters (e.g., ISA 540) would already have methodologies in place that addressed many of the requirements in the new standard. Another commenter asserted that any new standard would have a disproportionate impact on medium-sized accounting firms and their clients, as compared with larger firms and their clients. Additionally, one commenter noted that passing any incremental costs on to clients might be especially difficult for smaller firms. The Board believes that the new standard and related amendments are risk-based and scalable for firms of all sizes, and that any related cost increases are justified by expected improvements in audit quality.

In addition to the auditors, companies being audited may incur costs related to the new standard and related amendments, both directly and indirectly. Companies could incur direct costs from engaging with or otherwise supporting the auditor performing the audit. Some companies could face costs of providing documents and responding to additional auditor requests for audit evidence, due to a more rigorous evaluation of the company's assumptions and methods. Companies may also incur costs if, as a result of

the new standard, auditors need to discuss additional information with audit committees relating to accounting estimates. In addition, to the extent that auditors are able to pass on at least part of the increased costs they incur by increasing audit fees, companies and investors could incur an indirect cost. Some commenters on the proposal raised concerns that some of the increased costs, including the costs associated with requests for additional data and pricing information from third parties, might be passed through to companies in the form of increased audit fees. One commenter asserted that the proposal would in effect require some companies to increase their use of quantitative models that employ mathematical and statistical techniques producing precise calculations. The Board acknowledges the possibility of increased costs to companies related to the new requirements, but believes that it is reasonable to expect corresponding increases in audit quality, which will benefit companies and investors as well as auditors, as discussed in the previous section.

Some commenters argued that the new requirements would likely lead to significant expansion of audit procedures, documentation, and/or use of specialists, with limited incremental benefit. In addition, a few commenters raised concerns that the requirements could result in increased or duplicative work for issuers with no perceived benefit. The Board believes that the scalable, risk-based approach of the new standard allows auditors to tailor their procedures to respond to the risks. By aligning with the risk assessment standards and setting forth a framework for testing and evaluating procedures, the new standard is designed to require more audit effort for accounting estimates with higher risk of material misstatement, where greater benefits are expected, and less audit effort for estimates with lower risk of material misstatement, where lower potential



benefits are expected. In some areas, such as evaluating the relevance and reliability of pricing information provided by third-party pricing sources, the new standard may result in decreased audit effort and decreased costs, where justified by lower risk of material misstatement.

#### *Unintended Consequences*

One potential unintended consequence of replacing three existing standards with one standard might be a perceived loss of some explanatory language, since the new standard is intended to eliminate redundancies in the current standards. The Board believes that the new standard and related amendments, interpreted as described in this release, should provide adequate direction. However, the PCAOB will monitor implementation to determine whether additional interpretive guidance is necessary.

Another possible unintended consequence may result if an auditor exploits the latitude allowed under the new standard for using information from the company's third-party pricing source, but does so inappropriately. The new standard does, however, set forth specific direction for evaluating the relevance and reliability of such information from the third-party pricing source.

One commenter also cautioned that perceived information sharing by third-party pricing sources beyond contractual agreements could induce market data originators to stop sharing their confidential market data with pricing services. The Board does not seek to impose obligations on auditors to obtain pricing information beyond what is available under prevailing subscriber arrangements. Clarifications reflected in the requirements with respect to grouping of financial instruments also should help alleviate concerns in this area.

Finally, a few commenters on the proposal presented other potential unintended consequences. For example, one commenter cautioned that auditors may expand procedures performed unnecessarily, not as a response to increased risk, but due to fear of inspections. The Board believes that a single, uniform set of requirements with more clarity and specificity should provide auditors with a better understanding both of their duties and of the Board's expectations and reduce the risk that auditors would perform unnecessary procedures due to fear of inspections.

Another commenter pointed to the risk of cost spillover to private company audits, where PCAOB standards are not legally required but may nevertheless be applied. Pursuant to its statutory mandate under the Sarbanes-Oxley Act, the Board sets standards for audits of issuers and SEC-registered brokers and dealers based on considerations of investor protection and the public interest in the preparation of informative, accurate, and independent audit reports. The Board does not have authority either to require or to prohibit application of its standards in other contexts, and cannot predict or control the extent to which private companies and their auditors may elect to apply PCAOB standards.

The Board expects that the overall benefits of the proposed standard will justify any potential unintended negative effects.

#### Alternatives Considered, Including Policy Choices

The development of the new standard involved considering a number of alternative approaches to address the problems described above. This section explains (1) why standard setting is preferable to other policy-making alternatives, such as providing interpretive guidance or enhancing inspection or enforcement efforts; (2) other standard-

setting approaches that were considered; and (3) key policy choices made by the Board in determining the details of the new standard.

*Alternatives to Standard Setting—Why Standard Setting is Preferable to Other Policy-Making Alternatives*

Among the Board's policy tools, an increased focus on inspections, enforcement of existing standards, or providing additional guidance are alternatives to revising the standards. The Board considered whether increasing inspections or enforcement efforts would be effective corrective mechanisms to address concerns with the audit of estimates, including fair value measurements, and concluded that inspections or enforcement actions alone would be less effective in achieving the Board's objectives than in combination with amending auditing standards.

Inspection and enforcement actions take place after audits have occurred (and potential investor harm in the case of insufficient audit performance). They reinforce future adherence to current auditing standards. Given the differences in the estimates standards discussed previously, devoting additional resources to inspections and enforcement activities without improving the relevant performance requirements for auditors would increase auditors' compliance with what the Board and many stakeholders view as standards that could be improved.

The PCAOB has issued seven Staff Audit Practice Alerts between 2007 and 2014 that address, to varying degrees, auditing accounting estimates.<sup>153</sup> The PCAOB has

---

<sup>153</sup> See, e.g., *Matters Related to Auditing Fair Value Measurements of Financial Instruments and the Use of Specialists*, Staff Audit Practice Alert No. 2 (Dec. 10, 2007); *Auditor Considerations Regarding Fair Value Measurements, Disclosures, and Other-Than-Temporary Impairments*, Staff Audit Practice Alert No. 4 (Apr. 21, 2009); *Assessing and Responding to Risk in the Current Economic Environment*, Staff Audit Practice Alert No. 9 (Dec. 6, 2011); *Maintaining and Applying Professional*

considered issuing additional practice alerts or other staff guidance specific to the use of third parties such as pricing services.<sup>154</sup> The Board believes guidance specific to the use of third parties would be limited to discussing the auditor's application of the existing standards and, given the differences in these standards discussed herein, guidance would be an ineffective tool and not a long-term solution.

The Board's approach reflects its conclusion that, in these circumstances, standard setting is needed to fully achieve the benefits that could result from improvements in the auditing of estimates.

#### *Other Standard-Setting Alternatives Considered*

The Board considered certain standard-setting alternatives, including

- (1) developing a separate standard on auditing the fair value of financial instruments or
- (2) enhancing the estimates standards through targeted amendments.

#### *Developing a Separate Standard on Auditing the Fair Value of Financial Instruments*

The Board considered developing a separate standard that would specifically address auditing the fair value of financial instruments. The Board chose not to pursue this alternative because the addition of a separate standard could result in confusion and potential inconsistencies in the application of other standards. Additionally, the auditing issues pertinent to accounting estimates, including financial instruments, inherently

---

*Skepticism in Audits*, Staff Audit Practice Alert No. 10 (Dec. 4, 2012); and *Matters Related to Auditing Revenue in an Audit of Financial Statements*, Staff Audit Practice Alert No. 12 (Sept. 9, 2014).

<sup>154</sup> Other standard setters have issued guidance relating to their existing standards. For example, the IAASB issued International Auditing Practice Note 1000, *Special Considerations in Auditing Financial Instruments* (Dec. 16, 2011), to provide guidance to auditors when auditing fair value measurements of financial instruments.

overlap. Instead, the new standard includes a special topics appendix, which separately discusses certain matters relevant to financial instruments without repeating requirements that relate more broadly to all estimates, such as evaluating audit evidence.

#### Enhancing the Estimates Standards through Targeted Amendments

The Board considered, but determined not to pursue, amending rather than replacing the three estimates standards. Retaining multiple standards with similar requirements would not eliminate redundancy and could result in confusion and potential inconsistencies in the application of the standards. The approach presented in the new standard is designed to be clearer and to result in more consistent application and more effective audits.

Commenters on the proposal were generally supportive of a single, uniform standard with a consistent set of requirements. One commenter said that they believed that audit quality would be promoted with a single framework. On the other hand, one commenter, citing the differences between fair value measurements and derivatives and hedging accounting, expressed concerns about combining multiple standards into one, but did not specify how the auditing approach could or should differ. Another commenter cautioned that a single standard would lead to a one-size-fits-all audit approach and not allow the tailoring of audit procedures. However, by aligning with the risk assessment standards and describing the basic requirements for testing and evaluating estimates, the new standard is designed to allow the auditors to tailor their procedures in order to respond to specific risks of material misstatement.

#### Key Policy Choices

Given a preference for a single, comprehensive standard applicable to all accounting estimates, including fair value measurements, in significant accounts and disclosures, the Board considered different approaches to addressing key policy issues.

Include a Reporting Requirement in the New Standard

Measurement uncertainty cannot be eliminated entirely through audit procedures. This raises a question of whether reporting of additional information about such procedures in the auditor's report is necessary.

However, the Board also considered whether requiring communication in the auditor's report relating to estimates would be duplicative of the new requirement to communicate critical audit matters ("CAMs"); any matters arising from the audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved especially challenging, subjective, or complex auditor judgments.<sup>155</sup> Under the new auditor's reporting standard, auditors will identify each CAM, describe the principal considerations that led them to determine it was a CAM, briefly describe how the CAM was addressed in the audit, and refer to the relevant accounts or disclosures in the financial statements. Because these reporting requirements will apply to financial statement estimates, including fair value measurements, if they meet the definition of CAM, AS 2501 (Revised) does not include any additional reporting requirements.

Require the Auditor to Develop an Independent Expectation

---

<sup>155</sup> See *The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion and Related Amendments to PCAOB Standards*, PCAOB Release No. 2017-001 (June 1, 2017).

Given the variety of types of accounting estimates and the ways in which they are developed, the Board is retaining the three common approaches from the existing standards for auditing accounting estimates, including fair value measurements. In addition, the new standard continues to require the auditor to determine what substantive procedures are responsive to the assessed risks of material misstatement.

The Board considered, but determined not to pursue, requiring the auditor to develop an independent expectation for certain estimates, or when an estimate gives rise to a significant risk. Some members of the Board's advisory groups advocated for a requirement for the auditor to develop an independent expectation in addition to testing management's process. In addition, some SAG members suggested a requirement for the auditor to develop an independent expectation rather than test management's process. Finally, a few commenters on the proposal stated that auditors should develop independent estimates in addition to testing management's process. Although requiring an independent expectation could help reduce the risk of anchoring bias, it may not always be feasible. For some accounting estimates, the data and significant assumptions underlying the estimate often depend on internal company information. Also, developing a customized method or model for a particular company's estimate may not be practical, and a more general method or model could be less precise than the company's own model. In those situations, the auditor may not have a reasonable alternative to testing the company's process.

Require Additional Audit Procedures When an Accounting Estimate Gives  
Rise to Significant Risk

The Board considered including additional requirements when an accounting estimate gives rise to a significant risk, either more broadly or specifically when a wide range of measurement uncertainty exists. Alternatives considered included:

- Establishing that certain estimates are presumed to give rise to a significant risk (e.g., the allowance for loan losses).
- Establishing specific procedures that would depend on the risk determined to be significant (e.g., the use of a complex model determined to give rise to a significant risk would result in the auditor being required to perform specific procedures on that model).
- Including a requirement, similar to those in AU-C Section 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, And Related Disclosures* ("AU-C 540"),<sup>156</sup> for the auditor to evaluate how management has considered alternative assumptions or outcomes and why it has rejected them when significant measurement uncertainty exists.

Including additional requirements when an estimate gives rise to a significant risk would mandate the auditor to direct additional attention to that risk. AS 2301, however, already requires an auditor to perform substantive procedures, including tests of details that are specifically responsive to the assessed risks of material misstatement. This includes circumstances when the degree of complexity or judgment in the recognition or measurement of financial information related to the risk, especially those measurements

---

<sup>156</sup>

See paragraph 15a of AU-C 540.



involving a wide range of measurement uncertainty, give rise to a significant risk.<sup>157</sup>

Further, with respect to critical accounting estimates,<sup>158</sup> the new standard and related amendments require the auditor to obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect on its financial condition or operating performance,<sup>159</sup> and to take that understanding into account when evaluating the reasonableness of the significant assumptions and potential for management bias.

Thus, requiring specific procedures for accounting estimates that give rise to significant risks would be duplicative in some ways of the existing requirement in AS 2301 as well as those set forth by the new standard, and could result in additional audit effort without significantly improving audit quality. Additionally, including prescriptive requirements for significant risks could result in the auditor performing only the required procedures when more effective procedures exist, or could provide disincentives for the auditor to deem a risk significant in order to avoid performing the additional procedures.

Accordingly, the Board did not adopt these alternatives in favor of retaining the existing requirement in AS 2301.

#### Special Considerations for Audits of Emerging Growth Companies

---

<sup>157</sup> See AS 2301.11 and AS 2110.71f.

<sup>158</sup> See paragraph .A3 of AS 1301, *Communications with Audit Committees*.

<sup>159</sup> See *Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations*, Release No. 33-8350.

Pursuant to Section 104 of the Jumpstart Our Business Startups ("JOBS") Act, rules adopted by the Board subsequent to April 5, 2012, generally do not apply to the audits of EGCs unless the SEC "determines that the application of such additional requirements is necessary or appropriate in the public interest, after considering the protection of investors, and whether the action will promote efficiency, competition, and capital formation."<sup>160</sup> As a result of the JOBS Act, the rules and related amendments to PCAOB standards the Board adopts are generally subject to a separate determination by the SEC regarding their applicability to audits of EGCs.

The proposal sought comments on the applicability of the proposed requirements to the audits of EGCs. Commenters on the issue supported applying the proposed requirements to audits of EGCs, citing benefits to the users of EGC financial statements and the risk of confusion and inconsistency if different methodologies were required for EGC and non-EGC audits. One commenter suggested "phasing" the implementation of the requirements for audits of EGCs to reduce the compliance burden.

To inform consideration of the application of auditing standards to audits of EGCs, the staff has also published a white paper that provides general information about

---

<sup>160</sup> See Pub. L. No. 112-106 (Apr. 5, 2012). See Section 103(a)(3)(C) of the Sarbanes-Oxley Act, as added by Section 104 of the JOBS Act. Section 104 of the JOBS Act also provides that any rules of the Board requiring (1) mandatory audit firm rotation or (2) a supplement to the auditor's report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer (auditor discussion and analysis) shall not apply to an audit of an EGC. The new standard and related amendments do not fall within either of these two categories.

characteristics of EGCs.<sup>161</sup> As of the November 15, 2017 measurement date, the PCAOB staff identified 1,946 companies that had identified themselves as EGCs in at least one SEC filing since 2012 and had filed audited financial statements with the SEC in the 18 months preceding the measurement date.

The Board believes that accounting estimates are common in the financial statements of many EGCs.<sup>162</sup> The Board also notes that any new PCAOB standards and amendments to existing standards determined not to apply to the audits of EGCs would require auditors to address the differing requirements within their methodologies, which would create the potential for confusion.<sup>163</sup> This would run counter to the objective of improving audit practice by setting forth a more uniform, risk-based approach to auditing accounting estimates, including fair value measurements.

Overall, the above discussion of benefits, costs, and unintended consequences is generally applicable to audits of EGCs. Since EGCs tend to be smaller public companies,

---

<sup>161</sup> See PCAOB white paper, *Characteristics of Emerging Growth Companies as of November 15, 2017* (Oct. 11, 2018) ("EGC White Paper"), available on the Board's website.

<sup>162</sup> The five SIC codes with the highest total assets as a percentage of the total assets for the EGC population are (i) real estate investment trusts; (ii) state commercial banks; (iii) national commercial banks; (iv) crude petroleum and natural gas; and (v) pharmaceutical preparations. *Id.* at 14–15. The financial statements of companies operating in these industries would likely have accounting estimates that include, for example, asset impairments and allowances for loan losses.

<sup>163</sup> Approximately 99% of EGCs were audited by accounting firms that also audit issuers that are not EGCs and 40% of EGC filers were audited by firms that are required to be inspected on an annual basis by the PCAOB because they issued audit reports for more than 100 issuers in the year preceding the measurement date. See EGC White Paper at 3.

their accounting estimates may be less likely to involve complex processes,<sup>164</sup> although those estimates may constitute some of the largest accounts in EGCs' financial statements. Furthermore, EGCs may generally be more subject to information asymmetry problems associated with accounting estimates than other issuers. EGCs generally tend to have shorter financial reporting histories than other exchange-listed companies and as a result, there is less information available to investors regarding such companies relative to the broader population of public companies. Although the degree of information asymmetry between investors and company management for a particular issuer is unobservable, researchers have developed a number of proxies that are thought to be correlated with information asymmetry, including small issuer size, lower analyst coverage, larger insider holdings, and higher research and development costs.<sup>165</sup> To the extent that EGCs exhibit one or more of these properties, there may be a greater degree of information asymmetry for EGCs than for the broader population of companies, increasing the importance of the external audit to investors in enhancing the credibility of

---

<sup>164</sup> See, e.g., the note to AS 2201.09, which provides that many smaller companies have less complex operations and that less complex business processes and financial reporting systems are a factor indicating less complex operations.

<sup>165</sup> See, e.g., David Aboody and Baruch Lev, *Information Asymmetry, R&D, and Insider Gains*, 55 *Journal of Finance* 2747 (2000); Michael J. Brennan and Avanidhar Subrahmanyam, *Investment Analysis and Price Formation in Securities Markets*, 38 *Journal of Financial Economics* 361 (1995); Varadarajan V. Chari, Ravi Jagannathan, and Aharon R. Ofer, *Seasonalities in Security Returns: The Case of Earnings Announcements*, 21 *Journal of Financial Economics* 101 (1988); and Raymond Chiang, and P. C. Venkatesh, *Insider Holdings and Perceptions of Information Asymmetry: A Note*, 43 *Journal of Finance* 1041 (1988).

management disclosure.<sup>166</sup> The new standard and related amendments, which are intended to enhance audit quality, could increase the credibility of financial statement disclosures by EGCs.

When confronted with information asymmetry, investors may require a larger risk premium, and thus increase the cost of capital to companies.<sup>167</sup> Reducing information asymmetry, therefore, can lower the cost of capital to companies, including EGCs, by decreasing the risk premium required by investors.<sup>168</sup> Therefore, investors in EGCs may benefit as much as, if not more than, investors in other types of issuers as a result of the new standard and related amendments.

PCAOB staff gathered data from 2012–2016 reported inspection findings for issuer audits that were identified to be EGCs in the relevant inspection year.<sup>169</sup> The chart below shows the number of EGC audits with deficiencies related to the accounting estimates standard and fair value standard<sup>170</sup> based on the 2012–2016 reported inspection

---

<sup>166</sup> See, e.g., Molly Mercer, *How Do Investors Assess the Credibility of Management Disclosures?*, 18 *Accounting Horizons* 185, 189 (2004) ("[Academic studies] provide archival evidence that external assurance from auditors increases disclosure credibility...These archival studies suggest that bankers believe audits enhance the credibility of financial statements...").

<sup>167</sup> See, e.g., Lambert et al., *Information Asymmetry, Information Precision, and the Cost of Capital* 21.

<sup>168</sup> For a discussion of how increasing reliable public information about a company can reduce risk premium, see Easley and O'Hara, *Information and the Cost of Capital* 1553.

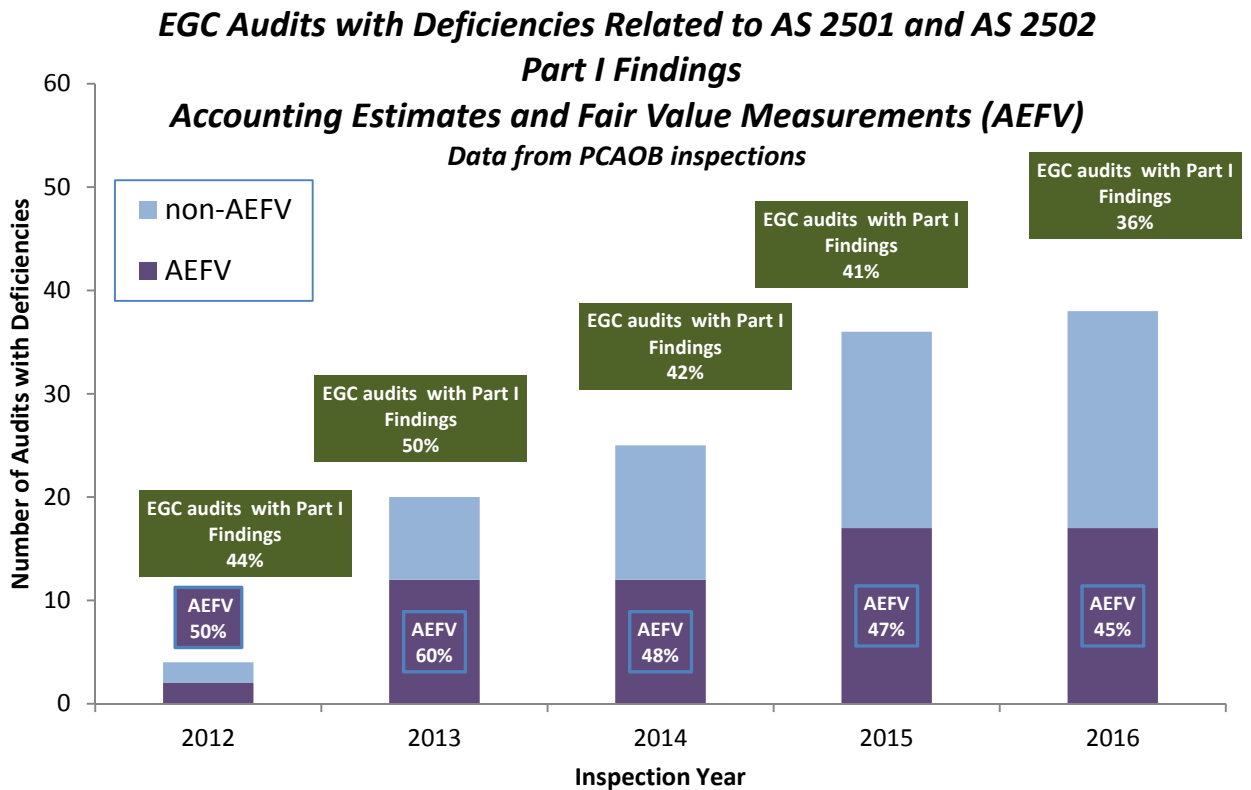
<sup>169</sup> See EGC White Paper for the methodology used to identify EGCs.

<sup>170</sup> Deficiencies related to the derivatives standard were infrequent over the inspection period reviewed, and therefore considered insignificant for purposes of this analysis.

findings.<sup>171</sup> The data help demonstrate the high frequency of deficiencies related to the existing estimates and fair value standards in the audits of EGCs, raising questions about whether professional skepticism is being appropriately applied and about overall audit quality in this area. The EGC audits that had deficiencies related to the existing estimates and fair value standards as a proportion of total EGC audits that had deficiencies (including deficiencies in internal control over financial reporting) have remained relatively high (45%–60%) for the 2012–2016 period.

---

<sup>171</sup> The chart identifies the audits of EGCs with deficiencies reported in the public portion of inspection reports. It shows the relative frequency of EGC audits with deficiencies citing the existing accounting estimates standard or the existing fair value standard compared to the total EGC audits with deficiencies for that year. It also shows the frequency of inspected EGCs audits that had a deficiency. For example, in inspection year 2013, 50% of the EGC audits that were inspected had a deficiency and 60% of the audits with deficiencies included at least one deficiency citing the accounting estimates standard or the fair value standard (total 2016 reported inspection findings are based on preliminary results).



The Board has provided this analysis to assist the SEC in its consideration of whether it is "necessary or appropriate in the public interest, after considering the protection of investors and whether the action will promote efficiency, competition, and capital formation," to apply the new standard and related amendments to audits of EGCs.

For the reasons explained above, the Board believes that the new standard and related amendments are in the public interest and, after considering the protection of investors and the promotion of efficiency, competition, and capital formation, recommends that the new standard and related amendments apply to audits of EGCs. Accordingly, the Board recommends that the Commission determine that it is necessary or appropriate in the public interest, after considering the protection of investors and

whether the action will promote efficiency, competition, and capital formation, to apply the new standard and related amendments to audits of EGCs. The Board stands ready to assist the Commission in considering any comments the Commission receives on these matters during the Commission's public comment process.

#### Applicability to Audits of Brokers and Dealers

The proposal indicated that the proposed standard and amendments would apply to audits of brokers and dealers, as defined in Sections 110(3)–(4) of the Sarbanes-Oxley Act. The Board solicited comment on any factors specifically related to audits of brokers and dealers that may affect the application of the proposed amendments to those audits. Commenters that addressed the issue agreed that the proposal should apply to these audits, citing benefits to users of financial statements of broker and dealers and the risk of confusion and inconsistency if different methodologies were required under PCAOB standards for audits of different types of entities.

After considering comments, the Board determined that the new standard and related amendments, if approved by the SEC, will be applicable to all audits performed pursuant to PCAOB standards, including audits of brokers and dealers.

The information asymmetry between the management and the customers of brokers and dealers about the brokers' and dealers' financial condition may be significant and of particular interest to customers, as the brokers or dealers may have custody of customers assets, which could become inaccessible to the customers in the event of an insolvency. In addition, unlike the owners of brokers and dealers, who themselves may be managers and thus may be subject to minimal or no information asymmetry, customers of brokers and dealers may, in some instances, be large in number and may not be expert in



the management or operation of brokers and dealers. Such information asymmetry between the management and the customers of brokers and dealers increases the role of auditing in enhancing the reliability of financial information, especially given that the use of estimates, including fair value measurements, is prevalent among brokers and dealers. The provision to regulatory agencies of reliable and accurate accounting estimates on brokers' and dealers' financial statements may enable these agencies to more effectively monitor these important market participants. Improved audits may help prevent accounting fraud that affects brokers' and dealers' customers and that may be perpetrated, for example, through manipulated valuations of securities. Therefore, the new standard should benefit customers and regulatory authorities of brokers and dealers by increasing confidence that brokers and dealers are able to meet their obligations to their customers and are in compliance with regulatory requirements.

Accordingly, the discussion above of the need for the new standard and related amendments, as well as the costs, benefits, alternatives considered, and potential unintended consequences to auditors and the companies they audit, also applies to audits of brokers and dealers. In addition, with respect to the impact of the new standard on customers of brokers and dealers, the expected improvements in audit quality described above would benefit such customers, along with investors, capital markets and auditors, while the final requirements are not expected to result in any direct costs or unintended consequences to customers of brokers and dealers.

### III. Date of Effectiveness of the Proposed Rules and Timing for Commission Action

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period not more than an additional 45 days (i) if the Commission

determines that such longer period is appropriate and publishes the reasons for such determination or (ii) as to which the Board consents, the Commission will:

- (A) by order approve or disapprove such proposed rules; or
- (B) institute proceedings to determine whether the proposed rules should be disapproved.

#### IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rules are consistent with the requirements of Title I of the Act. Comments may be submitted by any of the following methods:

##### Electronic comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/pcaob.shtml>); or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number PCAOB-2019-02 on the subject line.

##### Paper comments:

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number PCAOB-2019-02. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (<http://www.sec.gov/rules/pcaob.shtml>). Copies of the submission, all subsequent

amendments, all written statements with respect to the proposed rules that are filed with the Commission, and all written communications relating to the proposed rules between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing will also be available for inspection and copying at the principal office of the PCAOB. All comments received will be posted without charge. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number PCAOB-2019-02 and should be submitted on or before [insert 21 days from publication in the Federal Register].

By the Commission.

Vanessa Countryman  
Acting Secretary



1666 K Street, NW  
 Washington, D.C. 20006  
 Telephone: (202) 207-9100  
 Facsimile: (202) 862-8430  
[www.pcaobus.org](http://www.pcaobus.org)

---

PROPOSED AUDITING STANDARD – )

AUDITING ACCOUNTING ESTIMATES, )  
 INCLUDING FAIR VALUE MEASUREMENTS )

AND PROPOSED AMENDMENTS TO PCAOB )  
 AUDITING STANDARDS )

PCAOB Release No. 2017-002  
 June 1, 2017

PCAOB Rulemaking  
 Docket Matter No. 043

---

Summary: The Public Company Accounting Oversight Board ("PCAOB" or the "Board") is proposing an auditing standard, *Auditing Accounting Estimates, Including Fair Value Measurements* and amendments to other PCAOB auditing standards. The proposal strengthens and enhances the requirements for auditing accounting estimates by establishing a single standard that sets forth a uniform, risk-based approach. The proposed auditing standard and proposed amendments would be applicable to all audits conducted in accordance with PCAOB standards.

#### Public

Comment: Interested persons may submit written comments to the Board. Comments should be sent to the Office of the Secretary, PCAOB, and 1666 K Street, NW, Washington, DC 20006-2803. Comments also may be submitted by e-mail to [comments@pcaobus.org](mailto:comments@pcaobus.org) or through the Board's website at [www.pcaobus.org](http://www.pcaobus.org). All comments should refer to PCAOB Rulemaking Docket Matter No. 043 in the subject or reference line and should be received by the Board by August 30, 2017.

#### Board

Contacts: Keith Wilson, Deputy Chief Auditor (202/207-9134, [wilsonk@pcaobus.org](mailto:wilsonk@pcaobus.org)); Barbara Vanich, Associate Chief Auditor (202/207-9363, [vanichb@pcaobus.org](mailto:vanichb@pcaobus.org)); Nike Adesoye, Assistant Chief Auditor (202/591-4177, [adesoyen@pcaobus.org](mailto:adesoyen@pcaobus.org)); Dominika Taraszkiewicz, Assistant Chief Auditor (202/591-4143, [taraszkiewicz@pcaobus.org](mailto:taraszkiewicz@pcaobus.org)); David Hardison, Associate Counsel (202/591-4168, [hardisond@pcaobus.org](mailto:hardisond@pcaobus.org)); Karen Wiedemann, Associate Counsel (202/591-4411, [wiedemannk@pcaobus.org](mailto:wiedemannk@pcaobus.org)); Joon-Suk Lee, Senior Financial Economist (202/591-4460, [leej1@pcaobus.org](mailto:leej1@pcaobus.org)).



PCAOB Release No. 2017-002  
June 1, 2017  
Page i

The Board is proposing for public comment to:

- (1) Replace AS 2501, *Auditing Accounting Estimates*, and retitle the standard as *Auditing Accounting Estimates, Including Fair Value Measurements*.
- (2) Supersede AS 2502, *Auditing Fair Value Measurements and Disclosures*, and AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*.
- (3) Amend:
  - AS 1015, *Due Professional Care in the Performance of Work*;
  - AS 1105, *Audit Evidence*;
  - AS 2110, *Identifying and Assessing Risks of Material Misstatement*;
  - AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*;
  - AS 2401, *Consideration of Fraud in a Financial Statement Audit*;
  - and
  - AS 2805, *Management Representations*.
- (4) Rescind AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501*.



## TABLE OF CONTENTS

<b>I.</b>	<b>Executive Summary .....</b>	<b>1</b>
<b>II.</b>	<b>Background.....</b>	<b>4</b>
A.	Current Requirements .....	7
B.	Current Audit Practices Regarding Auditing Accounting Estimates .....	10
C.	Reasons to Improve Auditing Standards .....	14
<b>III.</b>	<b>Discussion of the Proposed Rules .....</b>	<b>16</b>
<b>IV.</b>	<b>Economic Considerations .....</b>	<b>21</b>
A.	Baseline.....	22
B.	Need for the Proposal.....	26
C.	Economic Impacts of the Proposal .....	40
D.	Alternatives.....	45
<b>V.</b>	<b>Special Considerations for Audits of Emerging Growth Companies .....</b>	<b>51</b>
<b>VI.</b>	<b>Applicability of the Proposed Requirements to Audits of Brokers and Dealers .....</b>	<b>54</b>
<b>VII.</b>	<b>Effective Date.....</b>	<b>55</b>
<b>VIII.</b>	<b>List of Appendices .....</b>	<b>56</b>
<b>IX.</b>	<b>Opportunity for Public Comment .....</b>	<b>56</b>



## **I. Executive Summary**

The Board is proposing amendments to its standards for auditing accounting estimates and fair value measurements, under which three existing standards would be replaced with a single, updated standard. As discussed in more detail below, in the Board's view the proposed standard and amendments would further investor protection by promoting strengthened auditing practices, updating the standards in light of recent developments, and applying a more uniform, risk-based approach to an area of the audit that is of increasing prevalence and significance.

The financial statements of most companies reflect amounts in accounts and disclosures that cannot be directly measured and instead require estimation. Examples include certain valuations of financial and non-financial assets, impairments of long-lived assets, allowances for credit losses, contingent liabilities, and revenues from contracts with customers. Such accounting estimates often have a significant impact on a company's reported financial position and results of operations. Accounting estimates are also becoming more prevalent and more significant as financial reporting frameworks continue to evolve and require greater use of estimates, including those based on fair value measurements.<sup>1</sup>

By their nature, accounting estimates, including fair value measurements, generally involve subjective assumptions and measurement uncertainty, making them susceptible to management bias. Some estimates involve complex processes and methods. Consequently, accounting estimates often are some of the areas of greatest risk in an audit, requiring additional audit attention and appropriate application of professional skepticism.

Currently, there are three PCAOB auditing standards that primarily relate to accounting estimates, including fair value measurements.<sup>2</sup> These standards were originally adopted between 1988 and 2003, and include common approaches for substantively testing accounting estimates, including fair value measurements. The standards vary, however, in their level of detail in describing those approaches. In

---

<sup>1</sup> For purposes of the proposed standard and accompanying discussion, a fair value measurement is a form of accounting estimate. See Section II for additional discussion.

<sup>2</sup> See Section II.A for discussion of current requirements that relate to auditing accounting estimates.



addition, the Board's risk assessment standards<sup>3</sup> include several requirements that relate to identifying, assessing, and responding to the risks of material misstatement in accounting estimates. The existing auditing standards on accounting estimates and fair value measurements, however, predate the risk assessment standards. Thus, existing standards could be improved through further integration with the risk assessment standards, which in turn could prompt greater audit attention to estimates with a greater risk of material misstatement.

Over a number of years, PCAOB staff has provided implementation guidance<sup>4</sup> related to auditing accounting estimates, but this area remains challenging and practices among firms currently vary. PCAOB inspections staff continues to identify deficiencies at both larger and smaller audit firms in auditing accounting estimates. Examples of such deficiencies include failures to sufficiently (1) test data used by companies to develop accounting estimates; (2) evaluate the reasonableness of significant assumptions used by management; (3) understand information provided by third-party pricing sources; and (4) obtain an understanding of the process for determining fair value measurements in audits of brokers and dealers. These inspection observations continue to raise concerns about auditors' application of professional skepticism and consideration of the potential for management bias in accounting estimates.

The PCAOB has engaged in outreach to explore the views of market participants and others on the potential for improvement of the auditing standards related to accounting estimates, including the Board's Standing Advisory Group ("SAG"),<sup>5</sup> the Pricing Sources Task Force ("Task Force"),<sup>6</sup> and the issuance of and comments on the Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements* ("SCP").<sup>7</sup>

---

<sup>3</sup> See Section II.A for discussion of current requirements, including the risk assessment standards.

<sup>4</sup> See Section II for discussion of relevant guidance issued by the PCAOB.

<sup>5</sup> See Section II for additional discussion of outreach performed.

<sup>6</sup> *Id.*

<sup>7</sup> See SCP, *Auditing Accounting Estimates and Fair Value Measurements* (Aug. 19, 2014), available on the Board's website.





The increasing prevalence and significance of accounting estimates, many with subjective assumptions, measurement uncertainty, and complex processes; the growing use of third-party pricing sources; and the results of the PCAOB's outreach indicate that improvements in the standards for auditing accounting estimates may be needed. Additionally, the number of audit deficiencies identified in the Board's oversight activities has led the PCAOB to consider whether changes to the existing standards could more effectively prompt the appropriate application of professional skepticism and consideration of potential management bias.

The Board is proposing to replace its existing standards on auditing accounting estimates and fair value measurements with a single standard, Proposed AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, and to amend the risk assessment standards to more specifically address certain aspects of auditing accounting estimates. The proposed standard would also include a special topics appendix that addresses certain matters relevant to auditing the fair value of financial instruments, including the use of information from pricing services.<sup>8</sup>

The proposal builds on the common approaches in the three existing standards and is intended to strengthen PCAOB auditing standards in the following respects:

- Add or revise requirements and provide direction to prompt auditors to devote greater attention to addressing potential management bias in accounting estimates, while reinforcing the need for professional skepticism.
- Extend certain key requirements in the existing standard on auditing fair value measurements, the newest and most comprehensive of the existing standards on auditing accounting estimates and fair value measurements, to all accounting estimates in significant accounts and disclosures to reflect a more uniform approach to substantive testing.
- Further integrate the risk assessment standards to focus auditors on estimates with greater risk of material misstatement.
- Make other updates to the requirements for auditing accounting estimates to provide additional clarity and specificity.

---

<sup>8</sup> See Section II.B and Section IV.B.2 for additional discussion of matters relevant to auditing the fair value of financial instruments.



- Provide specific requirements and direction to address certain aspects unique to auditing fair values of financial instruments, including the use of information from pricing sources (e.g., pricing services and brokers or dealers).

The Board is seeking comment on the proposed standard and amendments, alternatives to the proposal, the economic impacts of the proposal, and data on current practices and potential benefits and costs. This release, including Appendix 3, contains questions on discrete aspects of these matters on which the Board seeks comments. Commenters are encouraged to answer questions in the release, and to comment on any aspect of the release or the proposed standard and amendments not covered by specific questions. Commenters are especially encouraged to provide the reasoning to support their views and any relevant data.

The PCAOB has observed that, in many cases, specialists are used to either develop or assist in evaluating various accounting estimates. In a companion release, the Board is proposing amendments to PCAOB auditing standards to strengthen the requirements that apply when auditors use the work of specialists in an audit.<sup>9</sup> In that release, the Board is proposing to amend AS 1105, *Audit Evidence*, to add a new appendix that addresses the auditor's responsibilities when using the work of a company's specialists as audit evidence; amend AS 1201, *Supervision of the Audit Engagement*, to add a new appendix on supervising the work of auditor-employed specialists; and replace AS 1210, *Using the Work of a Specialist*, with an updated standard on using the work of auditor-engaged specialists (collectively, "specialist proposal"). Certain provisions of the proposed auditing standard in this release include references to the proposed amendments presented in the specialist proposal in order to illustrate how the proposed requirements in the two releases would work together.

## **II. Background**

Accounting estimates are an essential part of financial statements. Most companies' financial statements reflect accounts or amounts in disclosures that cannot be directly measured and thus require estimation. Accounting estimates are pervasive to financial statements, often substantially affecting a company's financial position and results of operations. Examples of accounting estimates include certain valuations of

---

<sup>9</sup> See *Proposed Amendments to Auditing Standards for the Auditor's Use of the Work of Specialists*, PCAOB Release No. 2017-003 (June 1, 2017) ("Specialists Release").



financial and non-financial assets, impairments of long-lived assets, allowances for credit losses, contingent liabilities, and revenues from contracts with customers. For purposes of this proposal, a fair value measurement is considered a form of accounting estimate because it generally shares many of the same characteristics with other estimates, including subjective assumptions and measurement uncertainty.

The prevalence and significance of accounting estimates have continued to grow with changes in the accounting standards. For example, over the past several years, changes in accounting standards<sup>10</sup> have expanded the use of fair value measurements<sup>11</sup> that need to be estimated.

Accounting estimates, by nature, have subjective<sup>12</sup> assumptions and measurement uncertainty, making them susceptible to management bias. Additionally, some estimates involve complex processes and methods. Consequently, accounting estimates often are some of the areas of greatest risk in an audit, requiring appropriate application of professional skepticism and additional audit attention to respond to the identified risks.

---

<sup>10</sup> See, e.g., Financial Accounting Standards Board ("FASB") Statement of Financial Accounting Standards ("SFAS") No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* (Feb. 2007). See also paragraph B41 of SFAS No. 141 (revised 2007), *Business Combinations* (Dec. 2007) (listing in the basis for conclusions as a reason to eliminate the pooling method: "Both Boards observed that the pooling method is an exception to the general concept that exchange transactions are accounted for in terms of the fair values of the items exchanged."). See also FASB Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* (May 2014).

<sup>11</sup> Under U.S. generally accepted accounting principles, a fair value measurement represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See FASB Accounting Standards Codification ("ASC"), Topic 820, *Fair Value Measurement*, paragraph 10-35-2.

<sup>12</sup> "Subjective" should not be understood to mean purely discretionary. Accounting estimates are bounded by the requirements of the applicable financial reporting framework and reasonableness, such that the financial statements are presented fairly, in all material respects, in conformity with the applicable financial reporting framework. See generally AS 2815, *The Meaning of "Present Fairly in Conformity with Generally Accepted Accounting Principles."*



The 2008 financial crisis underscored both the importance of and potential challenges associated with developing and auditing certain accounting estimates. Among other things, uncertainties in the market and economy during the crisis raised questions about the valuation, impairment, and recoverability of significant categories of assets and the completeness and valuation of significant categories of liabilities reflected in financial statements.

Auditing certain accounting estimates has also proven challenging to auditors.<sup>13</sup> In past years, PCAOB staff has issued guidance on auditors' responsibilities for auditing estimates under existing PCAOB standards.<sup>14</sup> As discussed in more detail in Section II.B.1, PCAOB inspections staff continues to identify deficiencies in auditing accounting estimates at both larger and smaller audit firms.

---

<sup>13</sup> See generally International Forum of Independent Audit Regulators ("IFIAR"), *Report on 2016 Survey of Inspection Findings* (Mar. 3, 2017); IFIAR, *Report on 2015 Survey of Inspection Findings* (Mar. 3, 2016); IFIAR, *Report on 2014 Survey of Inspection Findings* (Mar. 3, 2015); IFIAR, *Report on 2013 Survey of Inspection Findings* (Apr. 10, 2014); and IFIAR, *2012 Summary Report of Audit Inspection Findings* (Dec. 18, 2012) (available at <https://www.ifiar.org/IFIAR-Global-Survey-of-Inspection-Findings.aspx>).

<sup>14</sup> The Staff Audit Practice Alerts relevant to auditing accounting estimates, including fair value measurements, are as follows: (1) *Matters Related to Auditing Fair Value Measurements of Financial Instruments and the Use of Specialists*, Staff Audit Practice Alert No. 2 (Dec. 10, 2007); (2) *Audit Considerations in the Current Economic Environment*, Staff Audit Practice Alert No. 3 (Dec. 5, 2008); (3) *Auditor Considerations Regarding Fair Value Measurements, Disclosures, and Other-Than-Temporary Impairments*, Staff Audit Practice Alert No. 4 (Apr. 21, 2009); (4) *Auditor Considerations of Litigation and Other Contingencies Arising from Mortgage and Other Loan Activities*, Staff Audit Practice Alert No. 7 (Dec. 20, 2010); (5) *Assessing and Responding to Risk in the Current Economic Environment*, Staff Audit Practice Alert No. 9 (Dec. 6, 2011); (6) *Maintaining and Applying Professional Skepticism in Audits*, Staff Audit Practice Alert No. 10 (Dec. 4, 2012); and (7) *Matters Related to Auditing Revenue in an Audit of Financial Statements*, Staff Audit Practice Alert No. 12 (Sept. 9, 2014), available on the Board's website. See also PCAOB Staff Questions and Answers: *Auditing the Fair Value of Share Options Granted to Employees* (Oct. 17, 2006), available on the Board's website.



As part of its research and outreach, the PCAOB held a number of discussions with the SAG<sup>15</sup> and the Task Force<sup>16</sup> on matters relevant to auditing accounting estimates. In August 2014, the SCP was issued to solicit comments on various issues, including the potential need for standard setting and key aspects of a potential new standard and related requirements. The proposal was informed by the comments received on the SCP<sup>17</sup> and other outreach.

### **A. Current Requirements**

The primary PCAOB standards that apply specifically to auditing accounting estimates, including fair value measurements are:<sup>18</sup>

- AS 2501, *Auditing Accounting Estimates* (originally issued in April 1988) ("existing accounting estimates standard") – applies to auditing accounting estimates in general.<sup>19</sup>

---

<sup>15</sup> See SAG meeting briefing papers and webcast archives (Jun. 18, 2015, Oct. 2, 2014, Oct. 14-15, 2009, and Jun. 21, 2007), available on the Board's website.

<sup>16</sup> The Task Force was formed in 2011 to assist the staff in gaining insight into issues related to auditing the fair value of financial instruments. The Task Force met in May, June, and September 2011 on fair value related topics such as the use of third-party pricing sources and valuation of financial instruments in illiquid markets.

<sup>17</sup> The comment letters on the SCP are available on the Board's website.

<sup>18</sup> On April 16, 2003, the PCAOB adopted on an interim, transitional basis the generally accepted auditing standards, described in the American Institute of Certified Public Accountants ("AICPA") Auditing Standards Board's ("ASB") Statement on Auditing Standards No. 95, *Generally Accepted Auditing Standards*, then in existence. See *Establishment of Interim Professional Auditing Standards*, PCAOB Release No. 2003-006 (Apr. 18, 2003). Since that time, the Board has superseded or amended many of those auditing standards and has been engaged in updating and reconsidering the remaining standards. In addition, the PCAOB reorganized its auditing standards in 2015. See *Reorganization of PCAOB Auditing Standards and Related Amendments to PCAOB Standards and Rules*, PCAOB Release No. 2015-002 (Mar. 31, 2015).

<sup>19</sup> See generally AS 2501.01.



- AS 2502, *Auditing Fair Value Measurements and Disclosures* (originally issued in January 2003) ("existing fair value standard") – applies to auditing the measurement and disclosure of assets, liabilities, and specific components of equity presented or disclosed at fair value in financial statements.<sup>20</sup>
- AS 2503, *Auditing Derivative Instruments, Hedging Activities and Investments in Securities* (originally issued in September 2000) ("existing derivatives standard") – applies to auditing financial statement assertions for derivative instruments, hedging activities, and investments in securities. Its scope includes, among other things, requirements for auditing the valuation of derivative instruments and securities, including those measured at fair value.<sup>21</sup>

In addition, the Board's risk assessment standards<sup>22</sup> set forth requirements for the auditor's assessment of and response to risk in an audit, and those standards contain requirements that relate to accounting estimates. Those requirements include procedures regarding identifying and assessing risks of material misstatement in accounting estimates,<sup>23</sup> identifying and evaluating misstatements in accounting estimates,<sup>24</sup> and evaluating potential management bias associated with accounting estimates.<sup>25</sup> PCAOB standards also set forth requirements for the auditor to plan and

---

<sup>20</sup> See generally AS 2502.01.

<sup>21</sup> See generally AS 2503.01-.04.

<sup>22</sup> The Board's "risk assessment standards," originally adopted as Auditing Standards No. 8 through No. 15, set forth requirements relating to the auditor's assessment of, and response to, the risks of material misstatement in the financial statements. See *Auditing Standards Related to the Auditor's Assessment of and Response to Risk and Related Amendments to PCAOB Standards*, PCAOB Release No. 2010-004 (Aug. 5, 2010).

<sup>23</sup> See generally paragraph .13 of AS 2110, *Identifying and Assessing Risks of Material Misstatement*.

<sup>24</sup> See paragraph .13 of AS 2810, *Evaluating Audit Results*.

<sup>25</sup> See AS 2810.27.





perform his or her work with due professional care, which includes the application of professional skepticism.<sup>26</sup>

Both the existing accounting estimates standard and the existing fair value standard provide that the auditor may apply one or a combination of approaches to substantively test an accounting estimate:

- Testing management's process. This generally involves:
  - Evaluating significant assumptions used by management for reasonableness, and testing and evaluating the completeness, accuracy and relevance of data used; and<sup>27</sup>
  - Evaluating the consistency of management's assumptions with other information.<sup>28</sup>
- Developing an independent estimate. This generally involves using management's assumptions, or alternative assumptions, to develop an independent estimate or an expectation of an estimate.<sup>29</sup>
- Reviewing subsequent events or transactions. This generally involves using events or transactions occurring subsequent to the balance sheet date, but prior to the date of the auditor's report, to provide evidence about the reasonableness of the estimate.<sup>30</sup>

---

<sup>26</sup> See generally paragraph .07 of AS 1015, *Due Professional Care in the Performance of Work*.

<sup>27</sup> See generally AS 2501.11 and AS 2502.26-.39.

<sup>28</sup> *Id.*

<sup>29</sup> See generally AS 2501.12 and AS 2502.40.

<sup>30</sup> See generally AS 2501.13 and AS 2502.41-.42.



In general, the existing fair value standard, which is the most recent of the existing estimates standards,<sup>31</sup> sets forth more detailed procedures for the common approaches described above. The level of detail within the existing fair value standard, however, varies.<sup>32</sup> For example, the existing fair value standard sets forth a number of different requirements for testing management's process but only a few general requirements for developing an independent estimate.<sup>33</sup>

The existing derivatives standard primarily addresses auditing derivatives. This standard also includes requirements for auditing the valuation of derivatives and investment securities, including valuations based on an investee's financial results, and testing assertions about securities based on management's intent and ability.<sup>34</sup>

## **B. Current Audit Practices Regarding Auditing Accounting Estimates**

This section describes current practices for auditing accounting estimates, as observed over the past several years through PCAOB oversight activities (including observations from audit inspections and enforcement activities).<sup>35</sup>

The PCAOB has observed through its oversight activities that some audit firms' policies, procedures, and guidance ("methodologies") use approaches that apply certain of the basic procedures for auditing fair value measurements to other accounting estimates (e.g., evaluating the method used by management to develop estimates).<sup>36</sup>

---

<sup>31</sup> The existing accounting estimates standard, existing fair value standard, and existing derivatives standard are referred to collectively herein as the "existing estimates standards."

<sup>32</sup> See generally AS 2502.26-.40.

<sup>33</sup> See generally AS 2502.40.

<sup>34</sup> See generally AS 2503.28-.34 and AS 2503.56-.57.

<sup>35</sup> See Section IV.A for discussion of observations of practice from academic research.

<sup>36</sup> Notably, most of those firms base their methodologies largely on the standards of the International Auditing and Assurance Standards Board ("IAASB") or the ASB, which have adopted one standard for auditing both fair value measurements and other accounting estimates.





The PCAOB also has observed that when testing management's process, some auditors have developed expectations of certain significant assumptions as an additional consideration in evaluating the reasonableness of those assumptions.

Over the past few years, some audit firms have updated their methodologies, particularly in the area of auditing the fair value of financial instruments, often in response to identified inspection deficiencies.<sup>37</sup> For example, some firms have directed resources to implement more rigorous procedures to evaluate the process used by third-party pricing sources to determine the fair value of financial instruments.

The PCAOB has observed diversity in how audit firms use information obtained from third-party sources in auditing fair value measurements. Such third-party sources may include:

- Pricing services and brokers or dealers, which provide pricing information related to the fair value of financial instruments; and
- Specialists,<sup>38</sup> who may develop independent estimates or assist in evaluating a company's estimate or the work of a company's specialist.

Some larger audit firms have implemented centralized approaches to developing independent estimates of the fair value of financial instruments. These firms may use centralized, national-level pricing desks or groups to assist in performing procedures relating to testing the fair value of financial instruments. The level of information provided by these centralized groups to engagement teams varies. In some cases, the national-level pricing desk obtains pricing information from pricing services at the request of the engagement team. Additionally, national-level pricing desks may periodically provide information about a pricing service's controls and methodologies, and provide information on current market conditions for different types of securities to inform an engagement team's risk assessment. In other cases, the national-level pricing desk itself may develop estimates of fair value for certain types of securities, assist audit teams with evaluating the specific methods and assumptions related to a particular instrument, or evaluate differences between a company's price and price from a pricing source. Smaller audit firms that do not have a national pricing group often engage

---

<sup>37</sup> See Section II.B.1 for discussion of audit deficiencies observed by the Board through its inspection process.

<sup>38</sup> See Specialists Release, PCAOB Release No. 2017-003.



valuation specialists to perform some or all of these functions. Some smaller firms use a combination of external valuation specialists and internal pricing groups.

### 1. *Observations from Audit Inspections*

Through its oversight activities, the PCAOB has historically observed numerous deficiencies in auditing accounting estimates. Audit deficiencies have been observed in both larger and smaller audit firms.<sup>39</sup>

PCAOB inspections staff has observed audit deficiencies in issuer audits related to a variety of accounting estimates, including revenue-related estimates and reserves, the allowance for loan losses, the fair value of financial instruments, the valuation of assets and liabilities acquired in a business combination, goodwill and long-lived asset impairments, inventory valuation allowances, and equity-related transactions. Examples of such deficiencies include failures to (1) sufficiently test the accuracy and completeness of company data used in fair value measurements or other estimates, (2) evaluate the reasonableness of significant assumptions used by management, and (3) understand information provided by third-party pricing sources. In audits of brokers or dealers, deficiencies include failures to (1) obtain an understanding of the methods and assumptions internally developed or obtained by third parties that were used by the broker or dealer to determine fair value of securities, and (2) perform sufficient procedures to test valuation of securities. The observed deficiencies are frequently associated with, among other things, a failure to appropriately apply professional skepticism in auditing the estimates.<sup>40</sup> More recently, there are some indications in

---

<sup>39</sup> See, e.g., *Annual Report on the Interim Inspection Program Related to Audits of Brokers and Dealers*, PCAOB Release No. 2016-004 (Aug. 18, 2016); PCAOB Staff Inspection Brief, *Information about 2016 Inspections* (July 2016); PCAOB Staff Inspection Brief, *Preview of Observations from 2015 Inspections of Auditors of Issuers* (Apr. 2016); *Annual Report on the Interim Inspection Program Related to Audits of Brokers and Dealers*, PCAOB Release No. 2015-006 (Aug. 18, 2015); *Report on 2007-2010 Inspections of Domestic Firms that Audit 100 or Fewer Public Companies*, PCAOB Release No. 2013-001 (Feb. 25, 2013); and *Report on Observations of PCAOB Inspectors Related to Audit Risk Areas Affected by the Economic Crisis*, PCAOB Release No. 2010-006 (Sept. 29, 2010), available on the Board's website.

<sup>40</sup> Audit deficiencies have also been observed by other regulators internationally. For example, an IFIAR survey released in 2017 disclosed that the most commonly observed deficiencies related to auditing fair value measurements were failures to assess the reasonableness of assumptions, including consideration of contrary or



PCAOB inspections of issuer audits that observed deficiencies in this area are decreasing, as compared to earlier years. As noted previously, some audit firms have updated their audit practices in light of deficiencies identified through inspections. Not all firms have improved their practices in this area, however, and PCAOB inspections staff has continued to observe deficiencies similar to those described above. Inspection observations continue to raise concerns about auditors' application of professional skepticism and consideration of the potential for management bias in accounting estimates.

## 2. *Observations from Enforcement Cases*

Over the years, there have been a number of enforcement actions by the PCAOB and Securities and Exchange Commission ("SEC") for violations of PCAOB standards in auditing accounting estimates, demonstrating the importance of this aspect of the audit. Enforcement actions have been brought against larger and smaller firms, with domestic and international practices.

PCAOB enforcement cases related to auditing estimates have generally involved one or more of the following violations: (1) failure to perform any procedures to determine the reasonableness of significant assumptions; (2) failure to test the relevance, sufficiency, and reliability of the data supporting the accounting estimates; (3) failure to perform a retrospective review of a significant accounting estimate to determine whether management's judgments and assumptions relating to the estimate indicated a possible bias; and (4) failure to perform procedures to obtain corroboration for management representations regarding accounting estimates.<sup>41</sup>

---

inconsistent evidence where applicable; perform sufficient risk assessment procedures; sufficiently test the accuracy of data used; and take relevant variables into account. The survey also identified professional skepticism as one of the areas in which high frequencies of findings persist. See IFIAR, *Report on 2016 Survey of Inspection Findings* (Mar. 3, 2017), at 10 and 18.

<sup>41</sup> See, e.g., *Mark E. Laccetti, CPA*, PCAOB File No. 105-2009-007 (Jan. 26, 2015); *L.L. Bradford & Company, LLC*, PCAOB Release No. 105-2015-041 (Dec. 3, 2015); *Gordon Brad Beckstead, CPA*, PCAOB Release No. 105-2015-007 (Apr. 1, 2015); *David T. Svoboda, CPA*, PCAOB Release No. 105-2013-011 (Nov. 21, 2013); *Chisholm, Bierwolf, Nilson & Morrill, LLC, Todd D. Chisholm, CPA, and Troy F. Nilson, CPA*, PCAOB Release No. 105-2011-003 (Apr. 8, 2011); *Traci Jo Anderson and Traci Jo Anderson, CPA*, PCAOB Release No. 105-2010-007 (Aug. 12, 2010); and *Lawrence*



Similarly, the SEC has brought Rule 102(e) proceedings against auditors for substantive failures in auditing accounting estimates, including failures to obtain sufficient competent evidential matter for significant accounting estimates in an entity's financial statements and failures to exercise due professional care, including professional skepticism, throughout the audit.<sup>42</sup> In some cases, the auditor (1) obtained little, if any, reliable or persuasive evidence with respect to management's adjustments to stale appraised values; (2) failed to identify and address bias in management's estimates; or (3) failed to evaluate the results of audit procedures performed, including whether the evidence obtained supported or contradicted estimates in the financial statements.<sup>43</sup>

### C. Reasons to Improve Auditing Standards

The Board has identified three main reasons to improve its standards for auditing accounting estimates, including fair value measurements:

- The subjective assumptions and measurement uncertainty of accounting estimates make them susceptible to management bias. The Board believes that PCAOB standards related to auditing accounting estimates could be improved by specifically addressing the application of

---

*Scharfman CPA PA, and Lawrence Scharfman, CPA*, PCAOB Release No. 105-2009-005 (Aug. 11, 2009).

<sup>42</sup> See, e.g., *Miller Energy Resources, Inc.*, Paul W. Boyd, CPA, David M. Hall, and Carlton W. Vogt, III, CPA, SEC Accounting and Auditing Enforcement Release ("AAER") No. 3780 (June 7, 2016) and SEC AAER No. 3673 (Aug. 6, 2015); *Silberstein Ungar PLLC*, Ronald N. Silberstein, CPA, Joel M. Ungar, CPA, Seth A. Gorback, and David A. Kobylarek, CPA, SEC AAER No. 3777 (June 6, 2016); *Grant Thornton, LLP*, SEC AAER No. 3718 (Dec. 2, 2015); *James Vincent Poti, CPA*, SEC AAER No. 3519 (Dec. 18, 2013); *Sherb & Co., LLP*, Steven J. Sherb, CPA, Christopher A. Valteau, CPA, Mark Mycio, CPA, and Steven N. Epstein, CPA, SEC AAER No. 3512 (Nov. 6, 2013); *John J. Aesoph, CPA*, and Darren M. Bennett, CPA, SEC AAER No. 3436 (Jan. 9, 2013); and *Deloitte & Touche LLP*, Steven H. Barry, CPA, and Karen T. Baker, CPA, SEC AAER No. 2238 (Apr. 26, 2005).

<sup>43</sup> See, e.g., *Miller Energy Resources, Inc.*, Paul W. Boyd, CPA, David M. Hall, and Carlton W. Vogt, III, CPA, SEC AAER No. 3780 (June 7, 2016) and SEC AAER No. 3673 (Aug. 6, 2015); *Grant Thornton, LLP*, SEC AAER No. 3718 (Dec. 2, 2015); *John J. Aesoph, CPA*, and Darren M. Bennett, CPA, SEC AAER No. 3436 (Jan. 9, 2013).



professional skepticism and responding to potential management bias. Although the risk assessment standards and certain other PCAOB standards address professional skepticism and management bias, the existing estimates standards are largely silent on how to address those topics in the context of auditing accounting estimates.

- The differences in requirements among the three existing estimates standards suggest that revising PCAOB standards to set forth a more uniform, risk-based approach to auditing estimates could lead to improvements in auditing practices for responding to the risks of material misstatement in accounting estimates, whether due to error or fraud.
- PCAOB standards related to auditing accounting estimates could be improved by updating the requirements in light of certain developments, such as the prevalence of third-party pricing sources in fair value measurements.

Some commenters on the SCP and some SAG members suggested that PCAOB standards on auditing accounting estimates could be improved by further emphasizing the application of professional skepticism. These commenters indicated that the application of professional skepticism was important because of the inherent subjectivity of accounting estimates and the potential for management bias.

In addition, some commenters on the SCP indicated that a single standard would alleviate confusion and promote consistency in the application of requirements for auditing accounting estimates. For example, one commenter highlighted a perceived inconsistency in the standards regarding the auditor's responsibilities for evaluating significant assumptions. Other commenters expressed concerns about a single standard for auditing both fair value measurements and other accounting estimates, primarily because of the differences in how those estimates are developed rather than how they are audited. The requirements in the proposed standard take into account the unique aspects of auditing fair value measurements, such as the use of observable and unobservable inputs. Additionally, the proposed standard includes a separate appendix that addresses auditing the fair value of financial instruments.

A number of commenters on the SCP expressed support for PCAOB standards addressing how information from pricing services should be used in auditing the fair value of financial instruments. In addition, commenters recommended coordinating any





PCAOB Release No. 2017-002  
June 1, 2017  
Page 16

changes to existing standards on accounting estimates with the standards on the auditor's use of the work of specialists.<sup>44</sup>

Some commenters on the SCP questioned the need to change PCAOB standards for auditing accounting estimates, citing a lack of perceived audit failures related to estimates or a need for further analysis of audit deficiencies observed by the PCAOB and other audit regulators. However, the Board believes that the reasons cited above for improving the standards are supported by information from its oversight activities and outreach. Additionally, because of the significance and pervasiveness of accounting estimates in financial statements, improving the standards related to auditing estimates could potentially improve auditing practices more generally, for example, by emphasizing the application of professional skepticism.

### **III. Discussion of the Proposed Rules**

The Board is proposing to replace the existing accounting estimates standard, the existing fair value standard, and the existing derivatives standard with a single standard. As described in more detail in Appendix 3, the proposed single standard would include a special topics appendix that addresses certain matters relevant to auditing the fair value of financial instruments. In addition, the proposal would amend several PCAOB auditing standards to align them with the proposed single standard on auditing accounting estimates. The proposal would make the following changes to existing requirements:<sup>45</sup>

- Add or revise requirements and provide direction to prompt auditors to devote greater attention to addressing potential management bias in accounting estimates, while reinforcing the need for professional skepticism. In this regard, the proposal would:

---

<sup>44</sup> See Specialists Release, PCAOB Release No. 2017-003.

<sup>45</sup> The proposed amendments would apply to audits of issuers, as defined in Section 2(a)(7) of the Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley"), 15 U.S.C. 7201(a)(7), and to audits of brokers and dealers, as defined in Sections 110(3)-(4) of Sarbanes-Oxley, 15 U.S.C. 7220(3)-(4). As discussed further in this release, the PCAOB is seeking comment on whether the proposed amendments should apply to audits of emerging growth companies (see Section V below) and any factors specifically related to audits of brokers and dealers that may affect the application of the proposal to those audits (see Section VI below).



- Establish an objective emphasizing that accounting estimates should be free from bias that results in material misstatement.
- Amend AS 2110 to require a discussion among the key engagement team members of how the financial statements could be manipulated through management bias.
- Emphasize certain key requirements to focus auditors on their obligations to exercise professional skepticism and to identify management bias when evaluating audit results, in the context of auditing accounting estimates.
- Set forth factors for identifying significant assumptions used by the company. The factors would:
  - Encompass significant assumptions identified by the company, as under existing standards, and also include significant assumptions identified by the auditor.
  - Describe characteristics of assumptions that are important to the recognition or measurement of the estimate, such as whether the assumptions are susceptible to manipulation or bias.
- Emphasize requirements for the auditor to evaluate whether the company has a reasonable basis for significant assumptions used and, when applicable, for the company's selection of assumptions from a range of potential assumptions.
- Explicitly require the auditor, when developing an independent expectation of an accounting estimate, to have a reasonable basis for the assumptions he or she uses.
- Establish a requirement for the auditor to understand management's analysis of critical accounting estimates in evaluating the reasonableness of significant assumptions and potential for management bias.
- Recast certain existing requirements using terminology that encourages maintaining a skeptical mindset, such as "evaluate" and "compare" instead of "corroborate."



- Strengthen requirements for evaluating whether data was appropriately used by a company that build on requirements in the existing fair value standard, and include a new requirement for evaluating whether a company's change in the source of data is appropriate.
  - Clarify the auditor's responsibilities for evaluating data that build on the existing requirements in AS 1105.
  - Amend AS 2401, *Consideration of Fraud in a Financial Statement Audit*, to clarify the auditor's responsibilities when performing a retrospective review of accounting estimates and align them with the requirements in the proposed standard.
- Extend certain key requirements in the existing fair value standard, the newest and most comprehensive of the existing estimates standards, to all accounting estimates in significant accounts and disclosures to reflect a more uniform approach to substantive testing. For estimates not currently subject to the fair value standard, this would:
  - Refine the three substantive approaches common to the existing accounting estimates standard to include more specificity, similar to the existing fair value standard.
  - Describe the auditor's responsibilities for testing the individual elements of the company's process used to develop the estimate (i.e., assumptions, data, and methods).
  - Set forth express requirements for the auditor to evaluate the company's method for developing the estimate, including whether the method is:
    - In conformity with the requirements of the applicable financial reporting framework; and
    - Appropriate for the nature of the related account and the business, industry, and environment in which the company operates.
  - Require the auditor to take into account certain factors in determining whether significant assumptions that are based on the company's intent and ability to carry out a particular course of action are reasonable.





- Further integrate the risk assessment standards to focus auditors on estimates with greater risk of material misstatement. The proposal incorporates specific requirements relating to accounting estimates in AS 2110, and AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*, to inform the necessary procedures for auditing accounting estimates. Specifically, the proposal would:
  - Amend AS 2110 to include risk factors specific to identifying significant accounts and disclosures involving accounting estimates.
  - Align the scope of the new standard with AS 2110 to apply to accounting estimates in significant accounts and disclosures.
  - Amend AS 2110 to set forth requirements for obtaining an understanding of the company's process for determining accounting estimates.
  - Require auditors to respond to differing risks of material misstatement in the components of accounting estimates, consistent with AS 2110.
  - Include a factor for identifying significant assumptions based on whether the assumption specifically relates to an identified and assessed risk of material misstatement.
  - Include risk factors specific to identifying and assessing risks of material misstatement related to the fair value of financial instruments.
  - Add a note in AS 2301, consistent with AS 2820, *Evaluating Consistency of Financial Statements*, to emphasize that performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.
- Make other updates to the requirements for auditing accounting estimates, including:
  - Update the description of what constitutes an accounting estimate to encompass the general characteristics of the variety of accounting estimates, including fair value measurements, in financial statements.



PCAOB Release No. 2017-002  
June 1, 2017  
Page 20

- Set forth specific requirements for testing data and pricing information used by the company or the auditor that build on the existing requirements in AS 1105.
  - Establish more specific requirements for developing an independent expectation that vary depending on the source of data, assumptions or methods used by the auditor and build on AS 2810 to provide a requirement when developing an independent expectation as a range.
- Provide specific requirements and direction to address auditing fair values of financial instruments, including:
  - Establish requirements for how to determine whether pricing information obtained from third-party pricing sources, including pricing services and brokers or dealers, provides sufficient appropriate audit evidence:
    - Establish factors that affect relevance and reliability of pricing information obtained from a pricing service.
    - Require the auditor to perform additional audit procedures to evaluate the process used by the pricing service.
    - Establish factors that affect the relevance and reliability of quotes from brokers or dealers.
  - Require the auditor to understand, if applicable, how unobservable inputs were determined and evaluate the reasonableness of unobservable inputs.

The Board seeks to improve the quality of auditing in this area and believes these changes would strengthen and enhance the requirements for auditing accounting estimates.

In a companion release, the Board is proposing amendments to PCAOB auditing standards to strengthen the requirements that apply when auditors use the work of specialists in an audit.<sup>46</sup> In that release, the Board is proposing to amend AS 1105 to

---

<sup>46</sup>

See Specialists Release, PCAOB Release No. 2017-003.



add a new appendix that addresses the auditor's responsibilities when using the work of a company's specialists as audit evidence, amend AS 1201 with a new appendix on supervising the work of auditor-employed specialists, and replace AS 1210 with an updated standard on using the work of auditor-engaged specialists. Certain provisions of the proposed auditing standard in this release include references to proposed amendments in the companion release.

*Questions:*

1. Does the discussion of the reasons to improve auditing standards sufficiently describe the nature of concerns related to auditing accounting estimates that the Board should address? Are there additional concerns that the Board should seek to address?
2. Does the information presented above reflect current audit practice? Are there additional aspects of current practice of both larger and smaller audit firms that are relevant to the need for standard setting in this area?
3. Are there additional changes needed to improve the quality of audit work related to accounting estimates that the Board should include in its proposal?
4. Are there any other areas relating to auditing accounting estimates that the Board should address in the proposed standard (e.g., are there related areas of practice for which additional or different requirements are needed, such as the use of data analytics)?
5. Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition or impairment of financial instruments, that the proposed standard does not adequately address?

#### **IV. Economic Considerations**

The Board is mindful of the economic impacts of its standard setting. The economic analysis describes the baseline for evaluating the economic impacts of the proposal, analyzes the need for the proposal, and discusses potential economic impacts of the proposed requirements, including the potential benefits, costs, and unintended consequences. The analysis also discusses alternatives considered. Because there are limited data and research findings available to estimate quantitatively the economic impacts of discrete changes to auditing standards in this area, the Board's economic discussion is qualitative in nature.



## A. Baseline

Sections II.A–B above discuss the Board's current requirements for auditing accounting estimates and current practices in the application of those requirements. This section expands on the current practices of the profession and currently observed patterns relating to auditing accounting estimates.

Academic research confirms the prevalence and significance of accounting estimates in financial reporting. For example, in a 2014 study, Glendening, Mauldin, and Shaw argue that accounting estimates comprise a large and growing component of financial statements. They also study the determinants of issuers' decisions to provide quantitative sensitivity disclosures about critical accounting estimates,<sup>47</sup> finding about half of the issuers observed in their sample disclose such estimates.<sup>48</sup> Accounting estimates can have a high level of inherent subjectivity. One proxy for this is issuers' disclosure of critical accounting policies. In a 2011 study, Levine and Smith, using a large sample of cross-section annual filings, estimate that on average issuers disclose 6.46 policies as critical, with a median of 6.<sup>49</sup> Their analysis shows that issuers most frequently disclose policies relating to fair value measurements and estimates.<sup>50</sup> Furthermore, in a 2006 study, Martin, Rich, and Wilks<sup>51</sup> point out that fair value measurements frequently incorporate estimates of future conditions that involve an element of judgment.

Research also confirms that auditors find auditing estimates, including fair value measurements, to be challenging. For example, in providing a brief summary of the

---

<sup>47</sup> See Matt Glendening, Elaine Mauldin, and Kenneth W. Shaw, *Management, Auditor, and Audit Committee Influence on MD&A: Evidence from Critical Accounting Estimate Quantitative Sensitivity Disclosures* (Sept. 2014) (working paper, available at <http://www.auditanalytics.com/0000/papers.php?year=2014>).

<sup>48</sup> *Id.*

<sup>49</sup> See Carolyn B. Levine and Michael J. Smith, *Critical Accounting Policy Disclosures*, 26 *Journal of Accounting, Auditing & Finance* 39, 48 (2011).

<sup>50</sup> *Id.* at 49-50.

<sup>51</sup> See Roger D. Martin, Jay S. Rich, and T. Jeffrey Wilks, *Auditing Fair Value Measurements: A Synthesis of Relevant Research*, 20 *Accounting Horizons* 287, 289 (2006).



relevant literature, one study concludes that, while accounting estimates are increasingly important to financial statements, auditors experience "difficulty in auditing them, suggesting that audit quality may be low in this area."<sup>52</sup> A different study, based on a survey of auditors, finds that features such as "management assumptions, complexity, subjectivity, proprietary valuations, and a lack of verifiable data all contribute to the challenges in auditing [fair value measurements]."<sup>53</sup> Another study reports that "[i]nsufficient valuation knowledge is problematic in that relatively inexperienced auditors, who also likely lack knowledge of how their work fits into the bigger picture, perform many audit steps, even difficult ones such as preparation of independent estimates."<sup>54</sup> Glover et al. finds similar issues with expertise from management's side, with results that indicate that a majority of audit partners participating in their survey reported encountering problems with "management's lack of valuation-process knowledge."<sup>55</sup>

One study suggests that, among the three approaches available under current standards, auditors primarily choose to test management's process, rather than use subsequent events or develop an independent estimate.<sup>56</sup> Furthermore, in doing so, some auditors tend to verify management's assertions on a piecemeal basis, which the authors argue may result in overreliance on management's process rather than a critical analysis of the estimate. Another study finds that, when auditing lower-risk or simple estimates, auditors primarily test management's process, but are more likely to use a

---

<sup>52</sup> See Emily Griffith, Jacqueline S. Hammersley, Kathryn Kadous, and Donald Young, *Auditor Mindsets and Audits of Complex Estimates*, 53 *Journal of Accounting Research* 49, 49 (2014).

<sup>53</sup> See Nathan Cannon and Jean C. Bedard, *Auditing Challenging Fair Value Measurements: Evidence from the Field* 3, *The Accounting Review*, in-press 3 (2016).

<sup>54</sup> See Emily Griffith, Jacqueline S. Hammersley, and Kathryn Kadous, *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*, 32 *Contemporary Accounting Research* 833, 836 (2015).

<sup>55</sup> See Steven M. Glover, Mark H. Taylor, and Yi-Jing Wu, *Current Practices and Challenges in Auditing Fair Value Measurements and Complex Estimates: Implications for Auditing Standards and the Academy*, 36 *Auditing: A Journal of Practice & Theory* 63, 65 (2017).

<sup>56</sup> See Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice* 841.



combination of substantive approaches as the complexity and associated risk of the estimate increase.<sup>57</sup>

As discussed earlier, the PCAOB has historically observed numerous deficiencies in auditing accounting estimates.<sup>58</sup> For example, a PCAOB report on the Board's 2004-07 inspections of domestic annually inspected firms identified continued deficiencies in auditing estimates and fair value measurements in audits of issuers of all sizes.<sup>59</sup> Similarly, a Board report on the PCAOB's 2007-10 inspections of domestic firms that audited 100 or fewer public companies identified auditing accounting estimates, including fair value measurements, as among the areas in which deficiencies occurred more frequently.<sup>60</sup> To further understand this point, PCAOB staff gathered internal data from issuer inspection reports between 2008 and 2015 for the eight firms that have been inspected every year since the PCAOB's inspection program began. The chart below shows the number of unique inspection deficiencies related to the existing accounting estimates standard and the existing fair value standard from inspection reports between 2008 and 2015 for those eight accounting firms.<sup>61</sup>

---

<sup>57</sup> See Glover et al., *Current Practices and Challenges in Auditing Fair Value Measurements and Complex Estimates: Implications for Auditing Standards and the Academy* 65.

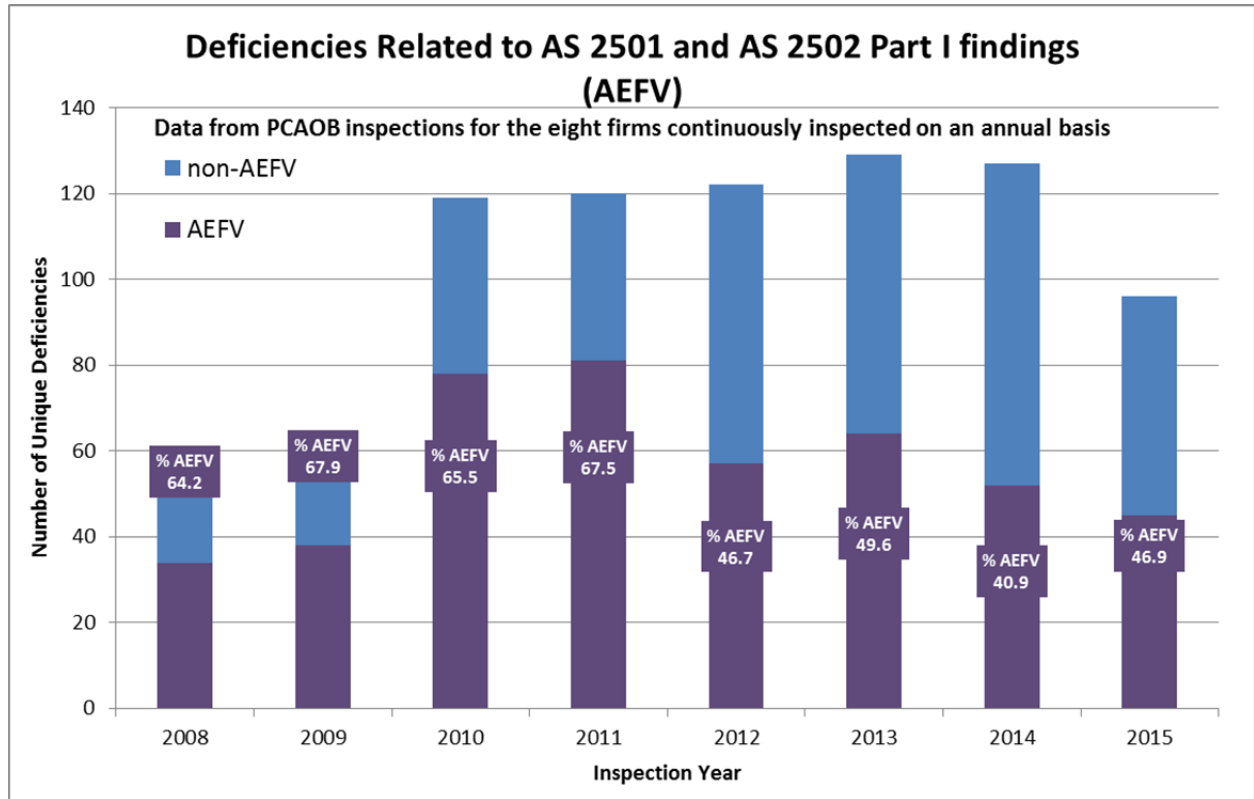
<sup>58</sup> See Section II.B.1 for discussion of observations from audit inspections.

<sup>59</sup> See *Report on the PCAOB's 2004, 2005, 2006, and 2007 Inspections of Domestic Annually Inspected Firms*, PCAOB Release No. 2008-008 (Dec. 5, 2008).

<sup>60</sup> See *Report on 2007-2010 Inspections of Domestic Firms That Audit 100 or Fewer Public Companies*, PCAOB Release No. 2013-001 (Feb. 25, 2013).

<sup>61</sup> The chart identifies deficiencies reported in the public portion of inspection reports. For purposes of the chart, a deficiency that cites more than one of the existing estimates standards is only counted once. The chart shows the relative frequency of deficiencies with the existing accounting estimates standard or the existing fair value standard cited compared to the total deficiencies for that year.





While the deficiencies as a proportion of total deficiencies (including internal control over financial reporting deficiencies), have been declining since 2009-11, they remain relatively high.<sup>62</sup> This is also consistent with a recent PCAOB Staff Inspection Brief, which observed that "[d]uring the 2014 and 2015 inspection cycles, [i]nspections staff observed some improvements in the audit work performed at some firms [regarding auditing accounting estimates, including fair value measurements] but continued to find high numbers of deficiencies at many firms."<sup>63</sup> Given the pattern of the data, one can conclude that, although deficiencies were increasing in the early

<sup>62</sup> PCAOB inspection reports for the same eight firms covering the inspection period from 2004 to 2009 similarly found deficiencies in auditing fair value measurements, including impairments and other estimates. See also Bryan Church and Lori Shefchik, *PCAOB Inspections and Large Accounting Firms*, 26 Accounting Horizons 43 (2012).

<sup>63</sup> See PCAOB Staff Inspection Brief (July 2016), at 4. For a more detailed discussion of observations from audit inspections, see Section II.B.1.



periods, more recently they have declined. Despite this recent decline, they have remained high over an extended period, which demonstrates the challenges involved in auditing estimates and may contribute to the potential need to improve the Board's standards for auditing accounting estimates.

*Question:*

6. Are there additional academic studies or data the Board should consider? The Board is particularly interested in studies or data that could be used to further assess current practice.

**B. Need for the Proposal**

As discussed in Section II.C, the Board has identified three main reasons to improve its standards for auditing accounting estimates:

- The subjective assumptions and measurement uncertainty of accounting estimates make them susceptible to management bias. The Board believes that PCAOB standards related to auditing accounting estimates could be improved by specifically addressing the application of professional skepticism and responding to potential management bias. Although the risk assessment standards and certain other PCAOB standards address professional skepticism and management bias, the existing estimates standards are largely silent on how to address those topics in the context of auditing accounting estimates.
- The differences among the three existing estimates standards for auditing accounting estimates suggest that revising PCAOB standards to set forth a more uniform, risk-based approach to auditing estimates could lead to improvements in auditing practices in responding to the risks of material misstatement in accounting estimates, whether due to error or fraud.
- PCAOB standards related to auditing accounting estimates could be improved by updating the requirements in light of certain developments, such as the prevalence of third-party pricing sources in fair value measurements.

Economic theory provides an analytical framework for the Board's consideration of these potential needs.





### 1. *Principal-agent Problems and Bounded Rationality*

Principal-agent theory is commonly used to describe the economic relationship between investors and managers, and the attendant information and incentive problems that result from the separation of ownership and control.<sup>64</sup> The presence of information asymmetry<sup>65</sup> in such a principal-agent relationship results in an inherent incentive problem (moral hazard)<sup>66</sup> where the objectives of the agent (auditor and management) may differ from the objectives of the principal (investors), such that the actions of auditors may be suboptimal from the investors' perspective. This information asymmetry also leads to an information problem (adverse selection)<sup>67</sup> resulting in a higher cost of capital, because investors may not be able to accurately assess the quality of management or of management reporting.

---

<sup>64</sup> For studies of principal-agent relationships and the attendant information and incentive problems in the context of the separation of ownership and control of public companies and its implications in financial markets, see, e.g., Michael C. Jensen and William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, 3 *Journal of Financial Economics* 305 (1976).

<sup>65</sup> Economists often describe "information asymmetry" as an imbalance, where one party has more or better information than another party.

<sup>66</sup> The moral hazard problem is also referred to as a hidden action, or agency problem in economics literature. The term "moral hazard" does not refer to a person's morality, but rather to an agent taking actions (such as not working hard enough) that benefit themselves at the expense of harming the principal. To mitigate moral hazard problems, the principal may tie the agent's pay to company performance to better align the agent's interests with the principal's interests. Monitoring the agent's behavior can reinforce these incentives. See, e.g., Bengt Holmstrom, *Moral Hazard and Observability*, 10 *The Bell Journal of Economics* 74 (1979).

<sup>67</sup> Adverse selection (or hidden information) problems can arise in circumstances where quality is difficult to observe, including in principal-agent relationships where the principal's information problem means it cannot accurately assess the quality of the agent or the agent's work. In addition to diminishing the principal's ability to optimally select an agent, the problem of adverse selection can manifest in markets more broadly, leading to an undersupply of higher-quality products. For a discussion of the concept of adverse selection, see, e.g., George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 *The Quarterly Journal of Economics* 488 (1970).



These issues present particular problems in the context of the estimates used in financial reporting. Given the degree of subjectivity in many financial statement estimates, biases (conscious or otherwise) may lead managers to pick a more favorable estimate within the permissible range.<sup>68</sup> That is, moral hazard issues may push management toward the most favorable estimates, either with respect to specific accounts or in the overall presentation. Individually, an estimate may be within a reasonable range, but the financial statements as a whole may not be fairly presented if the most favorable estimate is consistently selected by management.

Additional literature shows how these biases, such as management optimism or overconfidence, can manifest themselves.<sup>69</sup> For example, the literature suggests that individuals often overstate their own capacity and rate their attributes as better than average.<sup>70</sup> Moreover, evidence suggests that, on average, CEOs and CFOs tend to be more optimistic than the broader population.<sup>71</sup> Managerial overconfidence has been

---

<sup>68</sup> For purposes of this discussion, a "favorable" estimate can reflect either an upward or a downward bias, for example in earnings, depending on management incentives.

<sup>69</sup> Academic literature on managerial attitude draws a subtle distinction between optimism and overconfidence. Optimism leads managers to overestimate the expected value of their firm's cash flows. Overconfidence leads managers to underestimate the volatility of their cash flows. Previous research has found that the two traits are interrelated. See Catherine M. Schrand and Sarah L.C. Zechman, *Executive Overconfidence and the Slippery Slope to Financial Misreporting*, 53 *Journal of Accounting and Economics* 311, 320 (2012). See also Itzhak Ben-David, John R. Graham, and Campbell R. Harvey, *Managerial Overconfidence and Corporate Policies* (Dec. 2007) (working paper, available at <http://www.nber.org/papers/w13711>).

<sup>70</sup> This and other biases are discussed in, among others, Gilles Hilary and Charles Hsu, *Endogenous Overconfidence in Managerial Forecasts*, 51 *Journal of Accounting and Economics* 300 (2011).

<sup>71</sup> See John R. Graham, Campbell R. Harvey, and Manju Puri, *Managerial Attitudes and Corporate Actions*, 109 *Journal of Financial Economics* 103, 104 (2013). Managerial attitude has been linked to a variety of corporate decisions, including corporate investment and M&A. See Ulrike Malmendier and Geoffrey Tate, *CEO Overconfidence and Corporate Investment*, 60 *The Journal of Finance* 2661 (2005); and Ulrike Malmendier and Geoffrey Tate, *Who Makes Acquisitions? CEO Overconfidence and the Market's Reaction*, 89 *Journal of Financial Economics* 20 (2008).



linked to aggressive earnings forecasts by management.<sup>72</sup>

Audits are one of the mechanisms for mitigating the information and incentive problems arising in the investor-management relationship.<sup>73</sup> Audits are intended to provide a check of management's financial statements, and thus reduce management's potential incentive to prepare and disclose biased or inaccurate financial statements. Audit reports and auditing standards provide information to the market that may affect perceptions about the reliability of the financial statements, and therefore mitigate investors' information problem. Providing this information to investors can increase their willingness to invest in a company, potentially lowering the company's cost of capital.<sup>74</sup>

The auditor is also an agent of investors, however, and the information asymmetry between investors and auditors can also give rise to risks of moral hazard and adverse selection. Auditors may have incentives to behave suboptimally from investors' point of view by, for example, not sufficiently challenging management's estimates or underlying assumptions in order not to disturb the client relationship; shirking, if they are not properly incentivized to exert the effort considered optimal by shareholders; or seeking to maximize profits and/or minimize costs—sometimes at the expense of audit quality. As a result of such misaligned incentives, auditors may engage in practices that do not align with investors' needs and preferences.

Research has shown that even sell-side research analysts, generally understood to be sophisticated financial experts, have trouble assessing the impact on earnings of companies' derivative instruments, where the associated financial reporting involves fair

---

<sup>72</sup> See Paul Hribar and Holly Yang, *CEO Overconfidence and Management Forecasting*, 33 *Contemporary Accounting Research* 204 (2016).

<sup>73</sup> See Paul M. Healy and Krishna G. Palepu, *Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature*, 31 *Journal of Accounting and Economics* 405, 406 (2001). See also Mark DeFond and Jieying Zhang, *A Review of Archival Auditing Research*, 58 *Journal of Accounting and Economics* 275 (2014).

<sup>74</sup> See, e.g., David Easley and Maureen O'Hara, *Information and the Cost of Capital*, 59 *The Journal of Finance* 1553 (2004).



value measurements.<sup>75</sup> Similarly, some auditors may find auditing certain estimates challenging because, like all individuals, they may have limits on their ability to solve complex problems and to process information, especially when faced with time constraints.<sup>76</sup> In economic theory, this difficulty can be associated with bounded rationality: the idea that when individuals make decisions, their rationality may be limited by certain bounds, such as limits on available information, limits on analytical ability, limits on the time available to make the decision, and inherent cognitive biases.<sup>77</sup> Thus, in addition to the previously discussed moral hazard problem, the presence of bounded rationality injects another layer of challenges to auditing estimates (i.e., even if incentives between principal and agent are aligned, the agent, being boundedly rational,

---

<sup>75</sup> See Hye Sun Chang, Michael Donohoe, and Theodore Sougiannis, *Do Analysts Understand the Economic and Reporting Complexities of Derivatives?* 61 *Journal of Accounting and Economics* 584 (2016).

<sup>76</sup> One prominent psychologist refers to the mind as having two systems, System 1 and System 2. "System 1 operates automatically and quickly..." System 2 is the slower one that "can construct thoughts in an orderly series of steps." System 2 operations "require attention and are disrupted when attention is drawn away." Daniel Kahneman, *Thinking, Fast and Slow* 4, 20-22 (1st ed. 2011). Examples of System 2 operations include "[f]ill[ing] out a tax form" and "[checking] the validity of a complex logical argument," both of which require time and attention. Without time, one cannot dedicate attention to a task and, fully engage System 2, and hence is left with the automatic instinctual operation of System 1, which can lead to use of rules of thumbs (heuristics) and "biases of intuition." *Id.*

<sup>77</sup> For a seminal work in this field, see Herbert A. Simon, *A Behavioral Model of Rational Choice*, 69 *The Quarterly Journal of Economics* 99 (1955). Simon introduced this theory and argued that individuals cannot assimilate and process all the information that would be needed to maximize their benefits. Individuals do not have access to all the information required to do so, but even if they did, they would be unable to process it properly, since they are bound by cognitive limits. A short biography of Simon also provides a simple summary of this idea. See *Guru: Herbert Simon*, *The Economist*, March 20, 2009 (available at <http://www.economist.com/node/13350892>). Time is an essential limitation to problem solving, being fundamental to the definition of bounded rationality – "[t]he principle that organisms have limited resources, such as time, information, and cognitive capacity, with which to find solutions to the problems they face." Andreas Wilke and R. Mata, *Cognitive Bias*, as published in *The Encyclopedia of Human Behavior* 531 (2nd ed. 2012).



may be unable to execute appropriately and prone to the cognitive biases discussed below).

In this standard-setting project, one such bound may be the ability of auditors to analyze and integrate different existing standards or process the information required to audit estimates that involve complex processes, which may require sophisticated analytical and modeling techniques. In the presence of bounded rationality, individuals may resort to heuristics (i.e., rules of thumb).<sup>78</sup> In particular, auditors facing challenges in auditing an accounting estimate may resort to simplifications that might increase the potential for biases or errors that have seeped into financial statements to go undetected.

The literature has linked these cognitive issues to auditors' actions and attitudes, specifically professional skepticism.<sup>79</sup> For example, "research in psychology and accounting has identified that auditors' judgments are vulnerable to various problems, such as difficulty recognizing patterns of evidence, applying prior knowledge to the current judgment task, weighting evidence appropriately, and preventing incentives from affecting judgment in unconscious ways."<sup>80</sup> As a result, cognitive limitations may pose a threat to professional skepticism<sup>81</sup> and "[b]ias-inducing tendencies can lead even the

---

<sup>78</sup> "The essence of bounded rationality is thus to be a 'process of thought' rather than a 'product of thought': Individuals have recourse to reasonable procedures rather than to sophisticated computations which are beyond their cognitive capacities." Bertrand Munier, Reinhard Selten, D. Bouyssou, P. Bourguine et al., *Bounded Rationality Modeling*, 10 Marketing Letters 233, 234 (1999). In "[s]ituations where evolved task-general procedures are helpful (heuristics, chunks)...agents have difficulty finding even qualitatively appropriate responses...agents are then left with heuristics..." *Id.* at 237.

<sup>79</sup> Nelson argues that "[p]roblem-solving ability, ethical predisposition, and other traits like self-confidence and tendency to doubt are all related to [professional skepticism] in judgment and action," and, furthermore "[c]ognitive limitations affect [professional skepticism] in predictable ways." Mark Nelson, *A Model and Literature Review of Professional Skepticism in Auditing*, 28 Auditing: A Journal of Practice & Theory 1, 2 (2009).

<sup>80</sup> *Id.* at 6.

<sup>81</sup> "[A]uditors' judgments can be flawed because, like all people, sometimes they do not consistently follow a sound judgment process and they fall prey to systematic, predictable traps and biases. People, including experienced professionals ... often unknowingly use mental "shortcuts" ... to efficiently navigate complexity. [S]ituations





brightest, most experienced professionals, including auditors, to make suboptimal judgments."<sup>82</sup> There is further evidence of how cognitive biases resulting from bounded rationality may affect auditing, e.g., that auditors focus primarily on confirming, rather than challenging, management's model.<sup>83</sup> As discussed below, this can be seen as evidence of confirmation bias.

Accordingly, the existence of bounded rationality and, in particular, some inherent cognitive biases, might affect auditor judgment when auditing accounting estimates, even separate from any potential conflict of interest.

Some of the biases that might affect auditors include, but are not limited to:

- Anchoring Bias – decision makers anchor or overly rely on specific information or a specific value and then adjust to that value to account for other elements of the circumstance, so that there is a bias toward that value. In the auditing of estimates, the potential exists for anchoring on management's estimates.<sup>84</sup> This can be seen as a manifestation of findings that auditors may, at times, experience difficulties weighting evidence appropriately.<sup>85</sup>
- Confirmation Bias – a phenomenon wherein decision makers have been shown to actively seek out and assign more weight to evidence that confirms their hypothesis, and ignore or underweight evidence that could

---

can arise where they systematically and predictably lead to suboptimal judgments and potentially inhibit the application of appropriate professional skepticism." Steven M. Glover and Douglas F. Prawitt, *Enhancing Auditor Professional Skepticism* (Nov. 2013) (a report commissioned by the Standards Working Group of the Global Public Policy Committee), at 10.

<sup>82</sup> *Id.*

<sup>83</sup> See Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*.

<sup>84</sup> For a discussion on anchoring biases and some evidence, see, e.g., Robert Sugden, Jiwei Zheng, and Daniel John Zizzo, *Not All Anchors Are Created Equal*, 39 *Journal of Economic Psychology* 21 (2013).

<sup>85</sup> Nelson, *A Model and Literature Review of Professional Skepticism in Auditing* 6.



disconfirm their hypothesis. As such, it can be thought of as a form of selection bias in collecting evidence. It becomes even more problematic in the presence of anchoring bias, since auditors may anchor on management's estimate and may only seek out information to corroborate that value (or focus primarily on confirming, rather than challenging, management's model).<sup>86</sup>

- Familiarity Bias – "Familiarity is associated with a general sense of comfort with the known and discomfort with – even distaste for and fear of – the alien and distant."<sup>87</sup> In the context of auditing accounting estimates, auditors may be biased toward procedures, methods, models, and assumptions that seem more familiar to them, and auditors' familiarity with management may lead them to tend to accept management's assertions without sufficient challenge or consideration of other options.

All of these cognitive biases would pose a threat to the proper application of professional skepticism and an appropriate focus on the potential for management bias in accounting estimates. Importantly, bounded rationality and the associated biases exist in addition to any incentive problems (moral hazard). However, cognitive biases and moral hazard could work in the same direction to increase the likelihood of auditors agreeing with management, not considering contradictory evidence, or discounting the potential importance or validity of alternative models, methods, and assumptions.

The challenges of auditing estimates, in particular, are discussed throughout the literature. For example, Martin, Rich, and Wilks<sup>88</sup> point out that fair value measurements frequently incorporate forward-looking information as well as judgments, and that, since future events cannot be predicted with certainty, an element of judgment is always involved.

---

<sup>86</sup> For a discussion of confirmation bias, see, e.g., Raymond S. Nickerson, *Confirmation Bias: A Ubiquitous Phenomenon in Many Guises*, 2 Review of General Psychology 175 (1998). For a discussion of the manifestation of this bias in auditing, see, e.g., Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*.

<sup>87</sup> Gur Huberman, *Familiarity Breeds Investment*, 14 Review of Financial Studies 659, 678 (2001).

<sup>88</sup> See Martin et al., *Auditing Fair Value Measurements: A Synthesis of Relevant Research*.



It is also logical to conclude that the potential for biases also increases in the presence of measurement uncertainty, since there is more latitude in recording an estimate in such circumstances.

Academic studies find that the measurement uncertainty associated with accounting estimates can be substantial.<sup>89</sup> The measurement uncertainty inherent in estimates allows room for both management bias and error to affect preparers' valuation judgments, and estimates become less useful to capital market participants as they become less reliable.<sup>90</sup> It is also important for auditors to be wary of their own biases when auditing accounting estimates (e.g., to avoid merely searching for evidence that corroborates management's assertions).<sup>91</sup>

Some commenters on the SCP and SAG members were supportive of a new standard taking into account the potential for confirmation bias and emphasized the importance of the auditor's consideration of contradictory evidence. Members of the academic community have also cited studies suggesting a need for improvement in this area. For example, Griffith et al. found in their 2014 study that auditors focused primarily on confirming, rather than challenging, management's model, and appeared to accept management's model as a starting point and then verify aspects of that model.<sup>92</sup> Furthermore, none of the auditors in the study indicated that he or she considered

---

<sup>89</sup> See, e.g., Brant E. Christensen, Steven M. Glover, and David A. Wood, *Extreme Estimation Uncertainty in Fair Value Estimates: Implications for Audit Assurance*, 31 *Auditing: A Journal of Practice & Theory* 127 (2012); Cannon and Bedard, *Auditing Challenging Fair Value Measurements: Evidence from the Field* 2-3, 19.

<sup>90</sup> See, e.g., Russell Lundholm, *Reporting on the Past: A New Approach to Improving Accounting Today*, 13 *Accounting Horizons* 315 (1999), and Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*.

<sup>91</sup> See, e.g., Martin et al., *Auditing Fair Value Measurements: A Synthesis of Relevant Research*.

<sup>92</sup> See Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*.





whether additional factors beyond the assumptions made by management should be included in management's model. This type of behavior is indicative of anchoring bias.<sup>93</sup>

To address these issues discussed above, the proposal emphasizes the auditor's existing responsibility to apply professional skepticism, consider potential management bias, and evaluate audit evidence. It does so by emphasizing these professional obligations in the specific context of auditing accounting estimates. In addition, the revised terminology used to describe the nature of the auditor's responsibility and many of the new requirements previously described in Section III should guide the auditor in the appropriate application of professional skepticism when auditing estimates. This should also help auditors to overcome, or compensate for, potential biases and identify situations where management is consistently optimistic. The increased emphasis in the proposal on auditors' responsibilities to remain skeptical and to consider all available audit evidence should also discourage shirking (e.g., simply accepting management's assumptions, models, or estimates).

Reinforcing and clarifying auditors' responsibilities may enhance investors' trust that auditors are obtaining sufficient appropriate audit evidence regarding management's accounting estimates, thereby increasing investors' confidence in financial statements and the corresponding audit work performed. An increased confidence in financial statements could ameliorate investors' information asymmetry problem (adverse selection) and allow for a more efficient capital allocation decision.

## *2. Fostering a More Efficient, Risk-based Audit*

In addition to the principal-agent problems, including the potential for bias described above, having multiple standards with similar approaches but varying levels of detail in procedures may impose unnecessary costs. Perceived inconsistencies among existing standards may result in (1) different auditor responsibilities for accounts

---

<sup>93</sup> The problem resulting from this bias can be ameliorated, but not completely solved. Specifically, starting with management's number is often unavoidable since the auditor is reporting on whether the company's financial statements are fairly presented, in all material respects, in conformity with the applicable financial reporting framework. In other words, the audit, by its nature, uses the company's financial statements as a starting point. When reference is made to anchoring bias in this release, it is therefore not intended to refer to the auditor's responsibility to start with management's financial statements, but instead to the auditor's potential failure to effectively challenge management.



for which a similar audit approach would seem appropriate; (2) inconsistent application of standards; and (3) inappropriate audit responses.

Academic research speaks to the undesirable nature of overlapping standards addressing the same issue, which adds to task difficulty<sup>94</sup> and may, therefore, create unnecessary additional costs, as it is costly to sift through the standards and reconcile potential conflicts. These costs may exacerbate the principal-agent and cognitive challenges discussed above. For example, auditors might, consciously or otherwise, apply the standards in a manner that satisfies their objectives but not those of investors (e.g., auditors may choose an approach with fewer procedures and requirements to minimize audit cost, or for expediency, hence maximizing their profits). The existence of overlapping requirements might also lead to uncertainty about compliance, if auditors do not understand what is required. Finally, overlapping requirements may increase perceived uncertainty about audit quality, since market participants may not fully understand what standard is being, or even should be, applied.

The proposal seeks to address these issues by developing a single standard to replace the existing three standards related to auditing accounting estimates, including fair value measurements. The proposed single standard would further align the requirements with the risk assessment standards through targeted amendments to promote the development of appropriate responses to the risk of material misstatement related to accounting estimates. It would also include an appendix that addresses matters relevant to auditing the fair value of financial instruments.

Finally, existing standards do not differentiate based on the relative risks posed by different sources of fair value measurements. Existing requirements in the existing fair value standard for developing an independent estimate are not tailored to address the various ways in which auditors use third parties to evaluate a company's fair value measurements. Further, the existing requirements in AS 1210 on the auditor's use of specialists do not differentiate between a specialist and a pricing service or a broker or dealer.

The Board understands that pricing information generated by pricing services generally tend to have three main characteristics not shared by other estimates (1) uniformity of product (with little to no differentiation across users, so there is less risk of

---

<sup>94</sup> See Brian Bratten, Lisa Milici Gaynor, Linda McDaniel, Norma R. Montague, and Gregory E. Sierra, *The Audit of Fair Values and Other Estimates: The Effects of Underlying Environmental, Task, and Auditor-Specific Factors*, 32 Auditing: A Journal of Practice & Theory 7, 15-16 (2013).



inherent bias); (2) work of the pricing service that, in most cases, is not prepared at the direction of a particular client (which is related to the concept of uniformity of product since absence of direction is akin to the product not being tailored to the client); and (3) buyers of the product with little, if any, market power. These characteristics reduce the risk of bias, unless the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service. The potential for bias is further attenuated for pricing services, since there is monitoring by the market as a whole, and most of the prices provided by these services are for traded securities or for securities for which quotes are available or for which similar securities are traded.

Overall, the Board believes that differences in relative risk suggest that some third parties (e.g., pricing services and brokers or dealers) may need to be treated differently from others (e.g., specialists) under some circumstances. Commenters on this topic in the SCP were supportive of requirements that acknowledge the differences between specialists and other third parties such as pricing services.

The Board believes that there also are differences between brokers or dealers and pricing services that may warrant differential treatment. Based on outreach and observations from the Board's oversight activities, the Board understands that pricing services tend to accumulate overall market information, rather than engage directly in market transactions, and typically have well-defined methodologies that are used consistently on an ongoing basis. Therefore, they tend to provide customers with more uniform pricing information. Brokers or dealers, on the other hand, are in the business of providing liquidity to the market (by acting as a buyer or seller) and connecting buyers and sellers. As such, it is likely their pricing is more idiosyncratic (i.e., dependent on the party asking for a quote) and brokers or dealers may occasionally be less transparent in pricing the instruments. In addition, not all brokers or dealers necessarily have a firm-wide methodology, as they typically provide prices on a real-time basis. Therefore, the Board believes that the auditor's consideration of pricing information obtained from a broker or dealer, or from a pricing service should differ.

In order to address this issue, the proposal contains an appendix to the standard that more broadly addresses auditing financial instruments, including procedures specific to an auditor's use of evidence from third-party pricing sources. These procedures allow the auditor to use the work of the pricing service used by management in some circumstances (e.g., generally in cases where management uses a pricing service based on trades of similar instruments to value securities with a lower risk of



material misstatement).<sup>95</sup> This would be an appropriate risk-based audit response, since there is a lower chance of management bias when management uses a pricing service given their greater objectivity, as highlighted before, relative to management and company-employed specialists. In addition, for easier-to-value securities, particularly exchange-traded securities, requiring the auditor to obtain a price from a different source may not provide better evidence since it is likely based on the same underlying information.

In sum, the moral hazard problem, described in Section IV.B.1, could manifest in the auditor not performing appropriate procedures when auditing estimates, such as sufficiently challenging management's estimates or the assumptions underlying estimates, even though such procedures would improve audit quality. In addition, the presence of bounded rationality and the associated cognitive biases, whereby the auditor may be more prone to resort to simplifications (which could, for example, include not challenging certain assumptions) may lead to challenges in auditing estimates. Furthermore, as described in the preceding paragraphs, the presence of multiple standards with similar approaches but varying levels of detail in procedures also may impose unnecessary costs and inefficiencies in auditing estimates. All these issues result in market failure,<sup>96</sup> because market forces (e.g., investor demands) may not be effective in making the auditor more responsive to investors' concerns regarding how auditors audit estimates.

---

<sup>95</sup> The Specialists Release, PCAOB Release No. 2017-003, proposes requirements when, among other things, an auditor uses the work of a company's specialist as audit evidence.

<sup>96</sup> "Market failure" refers to a situation in which markets fail to function well. One can distinguish between complete and partial market failure. Complete market failure occurs when a market simply does not operate at all, because there are either no willing buyers (but willing producers) or no willing producers (but willing buyers). Partial market failure occurs when a market does function but produces either the wrong quantity of a product, or produces a product at the wrong price, or produces products at the wrong level of quality. For example, a market for public company audits which consistently produces some deficient audits would be considered a market experiencing partial market failure. See, e.g., Francis M. Bator, *The Anatomy of Market Failure*, 72 *The Quarterly Journal of Economics* 351 (1958); and Steven G. Medema, *The Hesitant Hand: Mill, Sidgwick, and the Evolution of the Theory of Market Failure*, 39 *History of Political Economy* 331 (2007).



These issues are not, and cannot efficiently be, addressed through market forces alone because the auditor may not be fully incentivized to address the aforementioned issues. The auditor may not be fully incentivized because auditors may incur additional costs to produce higher audit quality but would earn lower profits on the audit, since audit quality may not be observable and auditors may be unable to charge more for better audits.<sup>97</sup> Furthermore, because investors are diverse and geographically distributed, and can benefit from standardization, they face a potential collective action problem that creates additional barriers to jointly negotiate with auditors over requirements for auditing accounting estimates.

To mitigate this collective action problem and other potential sources of market failure, investors generally rely on auditing standards that are based on investor and public interests. PCAOB auditing standards establish performance requirements that, if not implemented, can result in costly penalties to the auditor in the form of litigation and reputational risk. In addition to strengthening the performance requirements for auditing accounting estimates, the proposed auditing standards reinforce the need for professional skepticism, which may encourage auditors, for example, to "refram[e] hypotheses so that confirmation biases favor [professional skepticism]," and thereby mitigate the effect of such biases on auditor judgment.<sup>98</sup>

*Question:*

7. The Board requests comment generally on the analysis of the need for the proposal. The Board is interested in any alternative economic approaches to analyzing the issues presented in this release, including references to relevant data, studies, or academic literature.

---

<sup>97</sup> The general effect of cost pressures on audit quality has been studied in the academic literature with varying empirical findings. See, e.g., James L. Bierstaker and Arnold Wright, *The Effects of Fee Pressure and Partner Pressure on Audit Planning Decisions*, 18 *Advances in Accounting* 25 (2001); B. Pierce and B. Sweeney, *Cost–Quality Conflict in Audit Firms: An Empirical Investigation*, 13 *European Accounting Review* 415 (2004); and Scott D. Vandervelde, *The Importance of Account Relations When Responding to Interim Audit Testing Results*, 23 *Contemporary Accounting Research* 789 (2006).

<sup>98</sup> Nelson, *A Model and Literature Review of Professional Skepticism in Auditing* 2.





## C. Economic Impacts of the Proposal

### 1. Benefits

The proposed standard could lead to two broad categories of benefits. The first relates directly to audit quality and the second relates to fostering an efficient risk-based approach to auditing accounting estimates, including fair value measurements. First, the proposed approach would strengthen auditor responsibilities for auditing accounting estimates, including fair value measurements, which should increase the likelihood that auditors detect material misstatements. Among other things, the proposed standard seeks to further integrate the risk assessment standards, which should encourage a uniform approach to achieve a risk-based audit response. These improvements should enhance audit quality and, in conjunction with the clarification of the procedures the auditor should perform, give investors and audit committees greater confidence in the accuracy of financial statements.<sup>99</sup> From a capital market perspective, an increase in investors' confidence about the information provided in companies' financial statements resulting from improved audit quality can increase the efficiency of capital allocation decisions. Second, the proposed approach may foster a more efficient and risk-based audit approach.

The extent of these benefits, which are discussed below, would largely depend on the extent to which firms would have to change their practices and methodologies.

---

<sup>99</sup> See, e.g., Richard A. Lambert, Christian Leuz, and Robert E. Verrecchia, *Information Asymmetry, Information Precision, and the Cost of Capital*, 16 *Review of Finance* 1, 21 (2011) ("[M]arket illiquidity influences the amount of information that is reflected in prices [and] ... reduces investors' average precision and thus raises the cost of capital. Moreover, the degree of information asymmetry in the economy influences the amount of market illiquidity, which also raises the cost of capital."). Professor Leuz is an economic advisor to the PCAOB's Office of Economic and Risk Analysis. This research was published before he joined the PCAOB. See also Luigi Guiso, Paola Sapienza, and Luigi Zingales, *Trusting the Stock Market*, 63 *Journal of Finance* 2557 (2008), for a discussion on the relationship between confidence and cost of capital. Professor Zingales is the Founding Director of the PCAOB's Center for Economic Analysis, now known as the Office of Economic and Risk Analysis. The research cited here was published before he joined the PCAOB. Additional evidence exists in, among others, DeFond and Zhang, *A Review of Archival Auditing Research* 275; and Jukka Karjalainen, *Audit Quality and Cost of Debt Capital for Private Firms: Evidence from Finland*, 15 *International Journal of Auditing* 88 (2011).



Benefits will be less for firms that have already adopted practices and methodologies similar to the requirements being proposed.

The proposal aims to reduce the problems generated by moral hazard and potential cognitive biases by establishing clear performance requirements for auditing accounting estimates and emphasizing the importance of potential management bias and the need to maintain a skeptical mindset. The main benefits relate to reinforcing the need to evaluate contradictory evidence, helping mitigate potential auditor biases in agreeing with management, increasing auditors' leverage to challenge management, increasing the reliability or precision of financial statements through such challenges (reducing the investors' informational asymmetry problems), and creating a more risk-based audit in general.

For example, tailoring requirements to the audit objective in the proposed standard as described in Section III may help reduce auditors' naturally existing bias. The use of terms such as "evaluate" and "compare" instead of "corroborate" and greater emphasis on auditors identifying the significant assumptions in accounting estimates could promote a more deliberative approach to auditing estimates, rather than a mechanical process of looking for evidence to support management's assertions. Further reinforcing the consideration of the effects of management bias in the risk assessment process should result in audit procedures that are more responsive to the assessed risks. Emphasizing the auditor's responsibilities to exercise professional skepticism would encourage auditors to be more conscious when weighting audit evidence and could reduce instances where auditors failed to consider contradictory evidence. Overall, these changes would lead to greater confidence in financial statements, therefore reducing investors' informational asymmetry problem.

In addition, several proposed changes to the existing standards would help to foster more efficient, risk-based auditing. First, a single standard with clear performance requirements, which is further aligned with the risk assessment standards, would promote consistency and effectiveness in application. Second, a single standard would allow PCAOB staff to develop timely guidance for specific issues when needed.

Uniformity of the standards would also potentially lead to other benefits to auditors and users of financial statements. A single, consistent set of requirements would lead to greater comparability across audits. In turn, assuming that firms comply with the new requirements, this should increase and make more uniform the quality of the information presented in the financial statements. Audits would be more consistent and efficient, since there should be no doubt on what requirements to apply. Users of financial statements would also know with more certainty what requirements are being applied, again under the assumption that firms comply with the new requirements, and therefore perceive financial statements as being more precise, reducing the information



problem. Additionally, having a uniform set of requirements might enhance the audit committee's understanding of the auditor's responsibilities and, therefore, potentially facilitate communications between the audit committee and the auditor.

By aligning more closely with the risk assessment standards, the proposal may also lead to a better allocation of auditing resources, with more hours, effort, and work being dedicated to higher-risk accounts. This would potentially lead to an increase in audit efficiency. Essentially, the new standard may lead to increased audit quality for harder-to-measure estimates (e.g., estimates with high inherent subjectivity) due to enhanced procedures, while for easier-to-measure and lower-risk estimates, the impact may primarily be an increase in efficiency.

Through the clarification of requirements in the existing estimates standards and further alignment with the risk assessment standards, auditors would have a better understanding of their duties, which could reduce the risk that auditors would perform unnecessary or ineffective procedures. Moreover, auditors may gain efficiencies that possibly would manifest themselves through reduced use of auditor resources, holding constant audit quality.

Requirements specific to pricing services that consider their differing business models would also allow for a more efficient audit. By drawing a clear and meaningful differentiation between specialists and pricing services, the proposed standard would allow for more tailored audit procedures, effectively allowing auditors to direct resources toward areas that pose a higher risk and are more difficult to audit. This approach would lead to an allocation of effort to areas with higher risk.

*Question:*

8. The Board requests comment generally on the potential benefits to investors and the public. Are there additional benefits the Board should consider?
2. Costs

The Board recognizes that imposing new requirements may result in additional costs to auditors and the companies they audit. In addition, to the extent that auditors incur higher costs to implement proposed requirements and are able to pass on at least part of the increased costs through an increase in audit fees, companies and investors could incur an indirect cost. Auditors may incur certain fixed costs (costs that are generally independent of the number of audits performed) related to implementing the proposal. These include costs to update audit methodologies and tools, prepare training materials, and conduct training. Larger firms are likely to update methodologies using





internal resources, whereas smaller firms are more likely to purchase updated methodologies from external vendors.

In addition, auditors may incur certain variable costs (costs that are generally dependent on the number of audits performed) related to implementing the proposal. These include costs of implementing the proposal at the audit engagement level (e.g., in the form of additional time and effort spent on the audit). For example, the suggested approach would require, in some instances, more procedures related to assessing risk and testing management's process, such as evaluating which of the assumptions used by management are significant. This could impose additional costs on auditors and require additional management time. Recurring costs may also increase if firms were to increase their use of specialists in response to the proposed auditing requirements. If this were to occur, it may disproportionately affect firms that do not currently employ or engage specialists and instead rely on the work of company specialists, potentially reducing the competitiveness of such firms.<sup>100</sup>

To the extent the proposed amendments require new or additional procedures, they may increase costs. For example, the proposed amendment to AS 2110.52 would require the auditor to consider, as part of the key engagement team member's discussion of the potential for material misstatement due to fraud, how the financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures. The proposed requirement would focus the auditor's attention on a risk that is particularly relevant to accounting estimates and further underscores the importance of applying professional skepticism in this area. The additional consideration could further increase costs.

The proposal's impact on the auditor's fixed and variable costs would likely vary depending on, among other things, the extent to which the proposed requirements have already been incorporated in accounting firms' audit methodologies or applied in practice by individual engagement teams. The proposal sets minimum requirements when using pricing information obtained from pricing services, so audit firms that are doing less than the proposed minimum requirements would experience higher cost increases. In addition, the proposal's impact could vary based on the size and complexity of an audit. All else equal, anticipated costs generally would be expected to be scalable: higher for larger, more complex audits than for smaller, less complex audits.

---

<sup>100</sup>

See Specialists Release, PCAOB Release No. 2017-003.



The economic impact of the proposal on larger accounting firms and smaller accounting firms may differ. For example, larger firms and smaller firms may employ different methodologies and approaches when auditing accounting estimates, including fair value measurements. Additionally, larger accounting firms would likely take advantage of economies of scale by distributing fixed costs (e.g., updating audit methodologies) over a larger number of audit engagements. Smaller accounting firms would likely distribute their fixed costs over fewer audit engagements. However, larger accounting firms would likely incur greater variable costs due to the proposal than smaller firms, because larger firms more often perform larger audits and it seems likely that these larger audits will more frequently involve accounting estimates with complex processes. It is not clear whether these costs (fixed and variable), as a percentage of total audit costs, would be greater for larger or for smaller accounting firms.

In addition, companies being audited may incur costs related to the proposed amendments, both directly and indirectly. Companies could incur direct costs from engaging with or otherwise supporting the auditor performing the audit. For example, some companies could face costs of providing documents and responding to additional auditor requests for audit evidence, due to a more rigorous evaluation of management's assumptions and models. Companies may also incur additional costs if, as a result of the proposal, auditors need to discuss additional information with audit committees relating to accounting estimates. In addition, to the extent that auditors are able to pass on at least part of the increased costs they incur by increasing audit fees, companies and investors could incur an indirect cost.

*Questions:*

9. The Board requests comment generally on the potential costs to auditors and companies they audit. Are there additional costs the Board should consider?
10. Are there additional academic studies or data the Board should consider? The Board is particularly interested in studies or data that could be used to assess potential benefits and costs.

3. *Unintended Consequences*

One potential unintended consequence of replacing three existing standards with one standard might be a perceived loss of some explanatory language, since the proposal is intended to eliminate redundancies in the current standards. The PCAOB is addressing this potential risk by including the relevant information in this release and, if needed, could also issue more directed staff practice alerts or guidance at a later date.



Another potential unintended consequence of including audit procedures tailored to using information from third-party pricing sources is that the procedures could become obsolete as technology and changes in capital markets affect how fair values of financial instruments are developed by these third parties. In addition, the upcoming implementation of significant changes to the financial reporting frameworks relating to financial instruments could result in the identification of matters that are not addressed by the proposal. The proposal includes a special topics appendix to address certain matters relevant to the auditing of the fair value of financial instruments. Including these matters in a special topics appendix could help mitigate the potential unintended consequences mentioned above by allowing for limited updates to be made, or additional requirements to be added, to the appendix in the future without the need to make more pervasive changes to the broader auditing standard on accounting estimates.

An additional, possible unintended consequence may result from this proposal if an auditor exploits the latitude allowed under the proposal for using information from the company's pricing service, but does so inappropriately. The proposal does, however, set forth specific direction for evaluating the relevance and reliability of such information from the pricing service.

Overall, the Board expects that the benefits of the proposed standard would justify any potential unintended negative effects.

*Question:*

11. The Board requests comment generally on the potential unintended consequences of the proposal. Are the responses to the potential unintended consequences discussed in the release adequate? Are there additional potential unintended consequences that the Board should consider? If so, what responses should be considered?

**D. Alternatives**

The development of the proposal involved considering a number of alternative approaches to address the problems described above. This section explains (1) why standard-setting is preferable to other policy-making approaches, such as providing interpretive guidance or enhancing inspection or enforcement efforts; (2) other standard-setting approaches that were considered; and (3) key policy choices made by the Board in determining the details of the proposed standard-setting approach.

As previously discussed, the SCP discussed and requested comment on the alternative approaches described below. These comments are discussed further in Appendix 3.



1. *Alternatives to Standard Setting - Why Standard Setting is Preferable to Other Policy-Making Alternatives*

Among the Board's policy tools, an increased focus on inspections, enforcement of existing standards, or providing additional guidance are alternatives to revising the standards. The Board considered whether increasing inspections or enforcement efforts would be effective corrective mechanisms to address concerns with the audit of estimates, including fair value measurements, and concluded that inspections or enforcement actions alone would be less effective in achieving the Board's objectives than in combination with amending auditing standards.

Inspection and enforcement actions take place after audits have occurred (and potential investor harm in the case of insufficient audit performance). They reinforce future adherence to current auditing standards. Given the differences in the existing estimates standards discussed previously, devoting additional resources to inspections and enforcement activities without improving the relevant performance requirements for auditors would increase auditors' compliance with what the Board and many stakeholders view as standards that could be improved.

As mentioned earlier, the PCAOB issued seven Staff Audit Practice Alerts between 2007 and 2014 that addressed, to varying degrees, auditing accounting estimates.<sup>101</sup> The PCAOB has considered issuing additional practice alerts or other staff guidance specific to the use of third parties such as pricing services.<sup>102</sup> This approach could provide targeted guidance to auditors in a relatively short period of time. However, guidance issued by the staff would be limited to discussing the auditor's application of the existing standards and, given the inconsistencies in these standards discussed herein, guidance would be an ineffective tool and not a long-term solution.

The Board's approach reflects its conclusion that, in these circumstances, standard setting is needed to fully achieve the benefits resulting from improvement in the auditing of estimates.

---

<sup>101</sup> See Staff Audit Practice Alert Nos. 2-4, 7, 9-10, 12.

<sup>102</sup> Other standard setters have issued guidance relating to their existing standards. For example, the IAASB issued International Auditing Practice Note 1000, *Special Considerations in Auditing Financial Instruments* (Dec. 16, 2011), to provide guidance to auditors when auditing fair value measurements of financial instruments.



## 2. *Other Standard-Setting Alternatives Considered*

The Board considered certain standard-setting alternatives, including (1) developing a separate standard on auditing the fair value of financial instruments, or (2) enhancing the existing estimates standards through targeted amendments.

### a. *Developing a Separate Standard on Auditing the Fair Value of Financial Instruments*

The Board considered, but is not proposing, a separate standard that would specifically address auditing the fair value of financial instruments. While this approach could provide a framework for auditors specific to an area that may pose significant auditing challenges, the addition of a separate standard could result in confusion and potential inconsistencies in the application of other standards. Existing PCAOB standards already include requirements for auditing fair value measurements and for auditing derivatives and securities. Additionally, the auditing issues pertinent to accounting estimates, including financial instruments, inherently overlap. Instead, the proposal includes a special topics appendix, which separately discusses certain matters relevant to financial instruments without repeating requirements that relate more broadly to all estimates, such as evaluating audit evidence or audit committee communications.

### b. *Enhancing the Existing Estimates Standards through Targeted Amendments*

The Board considered, but is not proposing, amending rather than replacing the three existing standards relating to auditing accounting estimates, fair value measurements, derivatives, and securities. This approach could result in fewer changes to firms' existing audit methodologies. However, retaining multiple standards with similar requirements would not eliminate redundancy and could result in confusion and potential inconsistencies in the application of the standards. In addition, the nature and extent of amendments that might be made to the existing standards could essentially result in new standards. The approach presented in the proposed standard is designed to be clearer and result in more effective audits.

As previously discussed, the SCP solicited comments on standard-setting alternatives. Comments that were supportive of a single standard generally pointed to the conceptual overlap in auditing accounting estimates and fair value measurements. Some commenters stated that issues related to fair value measurements were unique and warranted a separate auditing standard but did not specify how the auditing approach could or should differ for accounting estimates and fair value measurements. In response to those commenters who noted differences related to fair value



measurements, the proposed standard includes a special topics appendix that addresses certain matters relevant to auditing the fair value of financial instruments.

### 3. *Key Policy Choices*

Given a preference for a single, comprehensive standard applicable to all accounting estimates, including fair value measurements, in significant accounts and disclosures, the Board considered different approaches to addressing key policy issues.

#### a. *Include a Disclosure Requirement in the Proposed Standard*

The increasing prevalence and significance of accounting estimates, many with subjective assumptions, measurement uncertainty, and complex processes, may exacerbate the problems discussed through this release. The proposed new standard can only go so far in addressing these issues, since subjectivity cannot be eliminated through additional performance requirements in auditing standards. This could be interpreted to suggest the need for disclosure of additional information to investors to at least make them aware of such uncertainty.

The Board considered including specific discussion in the auditor's report related to certain estimates (for example, those that give rise to significant risk). Information asymmetry may hinder the well-functioning of markets and create inefficiency in capital allocation.<sup>103</sup> One way to ameliorate these informational asymmetry problems is through more disclosure. This alternative would entail adding to the standard a requirement for specific disclosures in the auditor's report related to certain estimates. For instance, one could require disclosures about auditor-developed ranges of the values of estimates, or whether the company used a third-party to assist them in developing an estimate.

---

<sup>103</sup> For instance, adverse selection (or hidden information) problems may arise in the presence information asymmetry (e.g., by leading to an undersupply of higher-quality products). When buyers and sellers have asymmetric information about market transactions, the trades that are transacted are likely to be a subset of the feasible, welfare-improving trades. Many trades that would voluntarily occur if all parties had full information will not take place. See, e.g., Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*. See also Lambert et al. *Information Asymmetry, Information Precision, and the Cost of Capital* 21 ("[T]he degree of information asymmetry in the economy influences the amount of market illiquidity, which also raises the cost of capital.").





This, in and of itself, would not eliminate the subjectivity inherent in many accounting estimates, but these additional disclosures would provide more information to investors, potentially reducing the information asymmetry between, on one hand, investors and, on the other hand, auditors and management. The net effect on investors could be positive, as it could allow them to make a more informed decision about their investment allocation.

However, the Board also considered whether requiring auditor disclosures relating to estimates would be duplicative of the proposed requirement to disclose critical audit matters ("CAMs"). The Board is considering adopting changes to the auditor's report that would generally require auditor reporting of CAMs: matters communicated or required to be communicated to the audit committee that relate to accounts or disclosures that are material to the financial statements and involved especially challenging, subjective or complex auditor judgment.<sup>104</sup> Because that new standard, if adopted and approved by the SEC, would require auditor reporting about financial statement estimates and fair value measurements in circumstances that meet that definition, this proposed standard does not include any additional reporting requirements.

b. Require the Auditor to Develop an Independent Expectation

Given the variety of types of accounting estimates and the ways in which they are developed, the Board is proposing to retain the three common approaches from the existing standards for auditing accounting estimates, including fair value measurements. In addition, the proposal would continue to require the auditor to determine what substantive procedures are responsive to the assessed risks of material misstatement.

The Board considered, but is not proposing, requiring the auditor to develop an independent expectation for certain estimates, or when an estimate gives rise to a significant risk. Some members of the Board's advisory groups advocated a requirement for the auditor to develop an independent expectation in addition to testing management's process. In addition, some SAG members suggested a requirement for the auditor to develop an independent expectation rather than test management's process.

---

<sup>104</sup> See *The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion and Related Amendments to PCAOB Standards*, PCAOB Release No. 2017-001 (June 1, 2017).



Although requiring an independent expectation could help reduce the risk of anchoring bias, it may not be feasible in many situations. For many accounting estimates, the data and significant assumptions underlying the estimate often depend on internal company information. Also, developing a customized method or model for a particular company's estimate may not be practical, and a more general method or model could be less precise than the company's own model. In those situations, the auditor may not have a reasonable alternative to testing the company's process.

Moreover, some commenters on the SCP cautioned against prescribing a specific approach for testing accounting estimates, noting that the selection should be based on a number of matters, including the identified and assessed risks of material misstatement. Those commenters also noted that facts and circumstances and the nature of the accounting estimate often dictate which approach or approaches are chosen by the auditor.

c. Require Additional Audit Procedures When an Accounting Estimate Gives Rise to a Significant Risk

The Board considered including additional requirements when an accounting estimate gives rise to a significant risk, either more broadly or specifically when a wide range of measurement uncertainty exists. Alternatives considered included:

- Establishing that certain estimates are presumed to give rise to a significant risk (e.g., mandating that the allowance for loan losses represents a significant risk). The Board further considered comments on the SCP that suggested that, if the Board were to determine that certain estimates are presumed to give rise to a significant risk, the presumption should be rebuttable.
- Establishing specific procedures that would depend on the risk determined to be significant (e.g., the use of a complex model determined to give rise to a significant risk would result in the auditor being required to perform specific procedures on that model).
- Including requirements similar to those in International Standard on Auditing 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, And Related Disclosures* ("ISA 540") and AU-C Section 540, *Auditing Accounting Estimates, Including Fair Value*





*Accounting Estimates, And Related Disclosures* ("AU-C 540")<sup>105</sup> that would require the auditor to evaluate how management has considered alternative outcomes and why it has rejected them when significant measurement uncertainty exists. This was suggested by some who commented on the SCP as an alternative to establishing that certain estimates are presumed to give rise to a significant risk.

Including additional requirements when an estimate gives rise to a significant risk would mandate the auditor to direct additional attention to that risk. AS 2301, however, already requires an auditor to perform substantive procedures, including tests of details that are specifically responsive to the assessed risks. This includes circumstances when the degree of complexity or judgment in the recognition or measurement of financial information related to the risk, especially those measurements involving a wide range of measurement uncertainty, give rise to a significant risk.<sup>106</sup> Thus, the alternatives discussed above would be duplicative of this existing requirement in some ways and could result in additional audit effort without significantly improving audit quality. Additionally, including prescriptive requirements for significant risks could result in the auditor performing only the required procedures when more effective procedures exist, or could provide disincentives for the auditor to deem a risk significant in order to avoid performing the additional procedures.

The SCP requested comment on whether certain types of accounting estimates or fair value measurements should be presumed to be a significant risk. Of the commenters that responded to this topic, many argued that a presumption of significant risk in all cases for certain accounting estimates would not be appropriate. Moreover, requiring additional audit procedures would not reduce the inherent uncertainty in certain estimates.

Accordingly, the Board is not proposing these alternatives in favor of retaining the existing requirement in AS 2301.

## **V. Special Considerations for Audits of Emerging Growth Companies**

The proposed standard and amendments would apply to audits of issuers, as defined in Section 2(a)(7) of Sarbanes-Oxley. As discussed below, the PCAOB is seeking comment on whether the proposed amendments should apply to audits of

---

<sup>105</sup> See paragraphs 15-16 of ISA 540 and AU-C 540.

<sup>106</sup> See AS 2301.11 and AS 2110.71f.



emerging growth companies ("EGCs"), as defined in Section 3(a)(80) of the Securities and Exchange Act of 1934 ("Exchange Act").

Pursuant to Section 104 of the Jumpstart Our Business Startups ("JOBS") Act, any rules adopted by the Board subsequent to April 5, 2012, generally do not apply to the audits of EGCs unless the SEC "determines that the application of such additional requirements is necessary or appropriate in the public interest, after considering the protection of investors, and whether the action will promote efficiency, competition, and capital formation."<sup>107</sup> As a result of the JOBS Act, the rules and related amendments to PCAOB standards the Board adopts are generally subject to a separate determination by the SEC regarding their applicability to audits of EGCs.

General data on EGCs<sup>108</sup> indicate that, among other things, a majority of EGCs are smaller public companies that are relatively new to the SEC reporting process. As a result, there is less information available to investors regarding such companies relative to the broader population of public companies. Therefore, EGCs are susceptible to the same issues described throughout this release, perhaps being affected even more by information asymmetry problems. When confronted with information asymmetry, investors may require a larger risk premium, and thus increase the cost of capital to companies.<sup>109</sup> Reducing information asymmetry, therefore, can lower the cost of capital

---

<sup>107</sup> See Pub. L. No. 112-106 (Apr. 5, 2012). See Section 103(a)(3)(C) of Sarbanes-Oxley, as added by Section 104 of the JOBS Act. Section 104 of the JOBS Act also provides that any rules of the Board requiring: (1) mandatory audit firm rotation or (2) a supplement to the auditor's report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer (auditor discussion and analysis) shall not apply to an audit of an EGC. The proposed amendments do not fall within either of these two categories.

<sup>108</sup> See *White Paper on Characteristics of Emerging Growth Companies as of November 15, 2016* (Mar. 28, 2017) ("EGC White Paper"), available on the Board's website.

<sup>109</sup> See, e.g., Lambert et al., *Information Asymmetry, Information Precision, and the Cost of Capital* 21 ("[M]arket illiquidity influences the amount of information that is reflected in prices [and] ... reduces investors' average precision and thus raises the cost of capital. Moreover, the degree of information asymmetry in the economy influences the amount of market illiquidity, which also raises the cost of capital.").



to companies, including EGCs, by decreasing the risk premium required by investors.<sup>110</sup> Additionally, the Board believes that accounting estimates are common in the financial statements of many EGCs.<sup>111</sup> Therefore, investors in EGCs may benefit as much as, if not more than, investors in other types of issuers as a result of the proposed amendments.

Academic research suggests that EGCs may have a higher degree of information asymmetry relative to the broader population of operating issuers. Although the degree of information uncertainty surrounding a particular issuer is unobservable, researchers have developed a number of proxies that are thought to be correlated with information asymmetry, including small issuer size, lower analyst coverage, larger insider holdings, and higher research and development costs.<sup>112</sup> To the extent that EGCs can be characterized as exhibiting one or more of these properties, they may have a greater degree of information asymmetry relative to the broader population of issuers, hence enhancing the need for applying the proposed amendments to audits of EGCs.

There were 1,947 companies that identified themselves as EGCs in at least one SEC filing since 2012 and have filed audited financial statements with the SEC in the 18

---

<sup>110</sup> For a discussion of how increasing reliable public information about a company can reduce risk premium, see Easley and O'Hara, *Information and the Cost of Capital* 1553.

<sup>111</sup> See EGC White Paper, which states, among other things, that the five SIC codes with the highest total assets as a percentage of the total assets for the EGC filer populations are (i) real estate investment trusts; (ii) state commercial banks; (iii) pharmaceutical preparations; (iv) federally chartered savings institutions; and (v) crude petroleum and natural gas. The financial statements of companies operating in these industries would likely have accounting estimates that include, for example, impairments, allowances for loan losses, and depreciation.

<sup>112</sup> See, e.g., David Aboody and Baruch Lev, *Information Asymmetry, R&D, and Insider Gains*, 55 *Journal of Finance* 2747 (2002); Michael J. Brennan and Avanidhar Subrahmanyam, *Investment Analysis and Price Formation in Securities Markets*, 38 *Journal of Financial Economics* 361 (1995); Varadarajan V. Chari, Ravi Jagannathan, and Aharon R. Ofer, *Seasonalities in Security Returns: The Case of Earnings Announcements*, 21 *Journal of Financial Economics* 101 (1988); and Raymond Chiang, and P. C. Venkatesh, *Insider Holdings and Perceptions of Information Asymmetry: A Note*, 43 *Journal of Finance* 1041 (2012).



months preceding the measurement date.<sup>113</sup> Approximately 97% of EGCs are audited by firms that also audit non-EGCs that are issuers and 38% of EGC filers were audited by firms that provided audit reports for more than 100 issuers and were required to be inspected on an annual basis by the PCAOB.<sup>114</sup> Any new PCAOB standards and amendments to existing standards determined not to apply to the audits of EGCs, therefore will require auditors to differentiate requirements between clients and develop different methodologies. There is potential for continuing confusion, as the three existing PCAOB standards would remain in effect for audits of EGCs and firms potentially would have to keep two different methodologies. This would run counter to the proposal's objective of improving audit practice by setting forth a more uniform, risk-based approach to auditing accounting estimates, including fair value measurements.

*Questions:*

12. The Board requests comment generally on the analysis of the impacts of the proposal on EGCs. Are there reasons why the proposal should not apply to audits of EGCs? What impact would the proposal likely have on EGCs, and how would this affect efficiency, competition, and capital formation?
13. Are there additional economic considerations associated with this proposal that the Board should consider? If so, what are those considerations?

## **VI. Applicability of the Proposed Requirements to Audits of Brokers and Dealers**

The proposed standard and amendments would apply to audits of brokers and dealers, as defined in Sections 110(3)-(4) of Sarbanes-Oxley. The information asymmetry between the management of brokers and dealers and their customers about the brokers' and dealers' financial condition may be significant and of particular interest to customers, as a broker or dealer may have custody of customer assets, which could become inaccessible to the customers in the event of the insolvency of the broker or dealer. In addition, unlike the owners of brokers and dealers, who themselves may be managers and thus may be subject to minimal or no information asymmetry, customers of brokers and dealers may, in some instances, be large in number and may not be expert in the management or operation of brokers and dealers. Such information

---

<sup>113</sup> See EGC White Paper.

<sup>114</sup> *Id.*



asymmetry between the management and the customers of brokers and dealers makes the role of auditing important to enhance the reliability of financial information, especially given that the use of estimates, including fair value measurements, is prevalent among brokers and dealers. The provision to regulatory agencies of reliable and accurate accounting estimates on brokers' and dealers' financial statements may enable these agencies to better monitor these important market participants. Better audits may also help prevent accounting fraud that affects brokers' and dealers' customers and that may be perpetrated, for example, through artificial valuations of securities. Therefore, the proposal may also benefit customers and regulatory authorities of brokers and dealers by increasing confidence that brokers and dealers are able to meet their obligations to their customers and are in compliance with regulatory requirements.

Accordingly, the discussion in Section IV of the need for the proposed standard and amendments, as well as the costs, benefits, alternatives considered, and potential unintended consequences to auditors and the companies they audit, also applies to audits of brokers and dealers. In addition, with respect to the impact of the proposal on customers of brokers and dealers, the expected improvements in audit quality described in Section IV.C.1 would benefit such customers, along with investors, capital markets and auditors, while the proposed requirements are not expected to result in any direct costs or unintended consequences to customers of brokers and dealers. The Board is seeking comment on any factors specifically related to audits of brokers and dealers that may affect the application of the proposal to those audits.

*Question:*

14. Are there any factors specifically related to audits of brokers and dealers that may affect the application of the proposal to those audits?

**VII. Effective Date**

The Board seeks comment on the amount of time auditors would need before the proposed new auditing standard and amendments become effective, if adopted by the Board and approved by the SEC. Specifically, the Board is considering whether compliance with an adopted standard and amendments should be required for audits of fiscal years beginning in the year after approval by the SEC (or for audits of fiscal years beginning two years after the year of SEC approval if that approval occurs in the fourth quarter).

*Questions:*

15. How much time following SEC approval would accounting firms need to implement the proposed requirements?



16. Would the effective date as described above provide challenges for auditors? If so, what are those challenges, and how should they be addressed?

## **VIII. List of Appendices**

The Board's proposal includes this release and the following appendices:

- Appendix 1 contains the text of the proposed standard;
- Appendix 2 contains the text of other related proposed amendments to PCAOB auditing standards and rules; and
- Appendix 3 details certain aspects of the proposed standard and amendments and provides additional questions for commenters.

## **IX. Opportunity for Public Comment**

The Board is seeking comments on all aspects of its proposal, as well as specific comments on the proposed standard and amendments. Among other things, the Board is seeking comment on the economic analysis relating to its proposal, including potential costs. To assist the Board in evaluating such matters, the Board is requesting relevant information and empirical data regarding the proposed standard and amendments.

Written comments should be sent to the Office of the Secretary, PCAOB, 1666 K Street, NW, Washington, DC 20006-2803. Comments also may be submitted by e-mail to [comments@pcaobus.org](mailto:comments@pcaobus.org) or through the Board's website at [www.pcaobus.org](http://www.pcaobus.org). All comments should refer to PCAOB Rulemaking Docket Matter No. 043 in the subject or reference line and should be received by the Board no later than August 30, 2017. Written comments on the proposed requirements in the companion release on the auditor's use of the work of specialists should refer to PCAOB Rulemaking Docket Matter No. 044 in the subject or reference line.

The Board will consider all comments received. After the close of the comment period, the Board will determine whether to adopt final rules, with or without changes from the proposal. Any final rules adopted will be submitted to the SEC for approval. Pursuant to Section 107 of Sarbanes-Oxley, proposed rules of the Board do not take effect unless approved by the SEC. Standards are rules of the Board under Sarbanes-Oxley.





PCAOB Release No. 2017-002  
June 1, 2017  
Page 57

On the 1<sup>st</sup> day of June, in the year 2017, the foregoing was, in accordance with the bylaws of the Public Company Accounting Oversight Board,

ADOPTED BY THE BOARD.

/s/ Phoebe W. Brown

Phoebe W. Brown

Secretary

June 1, 2017



PCAOB Release 2017-002  
June 1, 2017  
Appendix 1—Proposed Auditing Standard  
Page A1–1

## **APPENDIX 1**

[AS 2501 is proposed to be retitled and amended by replacing the paragraphs with the following:]

### **Proposed Auditing Standard AS 2501: *Auditing Accounting Estimates, Including Fair Value Measurements***

#### ***Introduction***

.01 This standard establishes requirements for auditing accounting estimates (including fair value measurements) in significant accounts and disclosures in financial statements.

.02 An accounting estimate is a measurement or recognition in the financial statements of (or a decision to not recognize) an account, disclosure, transaction, or event that generally involves subjective assumptions and measurement uncertainty. For purposes of this standard, a fair value measurement is a form of accounting estimate.

#### ***Objective***

.03 The objective of the auditor is to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework, and are free from bias that results in material misstatement.

#### ***Identifying and Assessing Risks of Material Misstatement***

.04 AS 2110, *Identifying and Assessing Risks of Material Misstatement*, establishes requirements regarding the process of identifying and assessing risks of material misstatement. This process includes (1) identifying accounting estimates in significant accounts and disclosures; (2) understanding the process by which accounting estimates are developed;<sup>1</sup> and (3) identifying and assessing the risks of material misstatement related to accounting estimates, which includes determining whether the components of

---

<sup>1</sup> See AS 2110.28 (as proposed to be amended – see Appendix 2).





PCAOB Release 2017-002

June 1, 2017

Appendix 1—Proposed Auditing Standard

Page A1–2

estimates in significant accounts and disclosures are subject to significantly differing risks,<sup>2</sup> and which accounting estimates are associated with significant risks.

Note: AS 2110.60 and .60A (as proposed to be amended – see Appendix 2) set forth risk factors relevant to the identification of significant accounts and disclosures involving accounting estimates. Paragraph .A1 in Appendix A of this standard sets forth matters that the auditor should take into account for identifying and assessing risks of material misstatement related to the fair value of financial instruments.

### ***Responding to the Risks of Material Misstatement***

.05 AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*, requires the auditor to design and implement appropriate responses that address risks of material misstatement. This includes applying substantive procedures to accounting estimates in significant accounts and disclosures.

Note: The auditor's response involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.<sup>3</sup>

Note: If different components of an accounting estimate in a significant account or disclosure are subject to significantly differing risks of material misstatement, the auditor's responses should include procedures that are responsive to the differing risks of material misstatement.

Note: The auditor's responses to the assessed risks of material misstatement, particularly fraud risks, should involve the application of professional skepticism in gathering and evaluating audit evidence.<sup>4</sup>

.06 AS 2301 provides that as the assessed risk of material misstatement increases, the evidence from substantive procedures that the auditor should obtain also increases.

---

<sup>2</sup> See AS 2110.63.

<sup>3</sup> See AS 2301.36 (as proposed to be amended – see Appendix 2).

<sup>4</sup> See AS 2301.07.



The evidence provided by substantive procedures depends upon the mix of the nature, timing, and extent of those procedures.<sup>5</sup>

.07 In performing substantive procedures<sup>6</sup> to respond to the identified and assessed risks of material misstatement associated with accounting estimates, the auditor should test an accounting estimate using one or a combination of the following approaches:

- a. Test the company's process used to develop the accounting estimate (see paragraphs .09-.20 of this standard);
- b. Develop an independent expectation for comparison to the company's estimate (see paragraphs .21-.26 of this standard); and
- c. Evaluate audit evidence from events or transactions occurring after the measurement date related to the accounting estimate for comparison to the company's estimate (see paragraphs .27-.29 of this standard).

Note: The auditor may use any of the three approaches (individually or in combination). However, the auditor's understanding of the process the company used to develop the estimate, and the results of tests of relevant controls, should necessarily inform the auditor's decisions about the approach he or she takes to auditing an estimate.

### **Use of an Auditor's Specialist**

.08 If the auditor engages a specialist to assist in obtaining or evaluating audit evidence, the auditor should also comply with the requirements of [Proposed Auditing Standard AS 1210, *Using the Work of an Auditor-Engaged Specialist* – See PCAOB Release No. 2017-003]. If the auditor uses a specialist employed by the auditor to assist in obtaining or evaluating audit evidence, the auditor should also comply with the

---

<sup>5</sup> See AS 2301.37.

<sup>6</sup> AS 2301.36 states that the auditor should perform substantive procedures for each relevant assertion of each significant account and disclosure, regardless of the assessed level of control risk.



requirements set forth in [Proposed Appendix C to AS 1201, *Supervision of the Audit Engagement* – See PCAOB Release No. 2017-003].<sup>7</sup>

### ***Testing the Company's Process Used to Develop the Accounting Estimate***

.09 Testing the company's process involves performing procedures to test and evaluate the methods, data, and significant assumptions used in developing the estimate, in order to form a conclusion about whether the estimate is reasonable in the circumstances, in conformity with the applicable financial reporting framework, and free from bias that results in material misstatement.<sup>8</sup>

### **Evaluating the Company's Methods**

.10 The auditor should evaluate whether the methods used by the company<sup>9</sup> to develop the accounting estimates are:

- a. In conformity with the requirements of the applicable financial reporting framework; and
- b. Appropriate for the nature of the related account or disclosure and the business, industry, and environment in which the company operates.

Note: Evaluating whether the methods are in conformity with the requirements of the applicable financial reporting framework includes

---

<sup>7</sup> See paragraph .16 of AS 2101, *Audit Planning*, which describes the auditor's responsibility to determine whether specialized skill or knowledge is needed to perform appropriate risk assessments, plan or perform audit procedures, or evaluate audit results.

<sup>8</sup> See also paragraphs .24-.27 of AS 2810, *Evaluating Audit Results*, which describe the auditor's responsibilities for evaluating the qualitative aspects of the company's accounting practices, including the effect of management bias on the financial statements.

<sup>9</sup> See also AS 2110.12, which describes the auditor's responsibilities for obtaining an understanding of the company's selection and application of accounting principles, including accounting principles used in the relevant industry.



PCAOB Release 2017-002

June 1, 2017

Appendix 1—Proposed Auditing Standard

Page A1–5

evaluating whether the data and significant assumptions are appropriately applied under the applicable financial reporting framework.

.11 If the company has changed the method for determining the accounting estimate, the auditor should determine the reasons for such change and evaluate the appropriateness of the change. This includes evaluating changes in methods that represent changes in accounting principles in accordance with AS 2820, *Evaluating Consistency of Financial Statements*.<sup>10</sup> In circumstances where the company has determined that different methods result in significantly different estimates, the auditor should obtain an understanding of the reasons for the method selected by the company and evaluate the appropriateness of the selection.<sup>11</sup>

### Testing Data Used

.12 AS 1105, *Audit Evidence*, requires the auditor, when using information produced by the company as audit evidence, to evaluate whether the information is sufficient and appropriate for purposes of the audit by performing procedures to: (1) test the accuracy and completeness of the information or to test the controls over the accuracy and completeness of that information, and (2) evaluate whether the information is sufficiently precise and detailed for purposes of the audit.<sup>12</sup>

.13 If the company uses data from an external source, the auditor should evaluate the relevance and reliability of the data in accordance with AS 1105.

.14 The auditor should also evaluate whether the data was appropriately used by the company in developing the accounting estimate by evaluating whether:

---

<sup>10</sup> See also AS 2820.06, which describes the auditor's responsibility for evaluating a change in accounting estimate effected by a change in accounting principle.

<sup>11</sup> See also AS 2301.05d, which requires the auditor to evaluate whether the company's selection and application of significant accounting principles, particularly those related to subjective measurements, are indicative of bias that could lead to material misstatement of the financial statements.

<sup>12</sup> See AS 1105.10.



- a. The data is relevant to the measurement objective for the accounting estimate;
- b. The data is internally consistent with its use by the company in other estimates tested; and
- c. The source of the company's data has changed from the prior year and, if so, whether the change is appropriate.

### **Identification of Significant Assumptions**

.15 The auditor should identify which of the assumptions used by the company are significant assumptions to the accounting estimate, that is, the assumptions that are important to the recognition or measurement of the accounting estimate in the financial statements. Factors that are relevant to identifying significant assumptions include whether the assumptions:

- a. Are sensitive to variation, such that minor changes in the assumption can cause significant changes in the estimate;
- b. Are susceptible to manipulation or bias;
- c. Involve unobservable data or company adjustments of observable data;
- d. Depend on the company's intent and ability to carry out specific courses of action;<sup>13</sup> or
- e. Otherwise are related to an identified and assessed risk of material misstatement of the estimate.

Note: If the company has identified significant assumptions used in an accounting estimate, the auditor's identification of significant assumptions should also include those assumptions.<sup>14</sup>

---

<sup>13</sup> See paragraph .17 of this standard.

<sup>14</sup> See *also* paragraph .18 of this standard, which sets forth requirements related to critical accounting estimates identified by management.



## **Evaluating the Reasonableness of Significant Assumptions**

.16 The auditor should evaluate the reasonableness of the significant assumptions used by the company to develop the estimate, both individually and in combination. This includes evaluating whether:

- a. The company has a reasonable basis for the significant assumptions used and, when applicable, for its selection of assumptions from a range of potential assumptions; and
- b. The significant assumptions are consistent with the following, where applicable:
  - i. Relevant industry, regulatory, and other external factors, including economic conditions;
  - ii. The company's objectives, strategies, and related business risks;<sup>15</sup>
  - iii. Existing market information;
  - iv. Historical or recent experience, taking into account changes in conditions and events affecting the company; and
  - v. Other significant assumptions used by the company in other estimates tested.

Note: If the auditor evaluates the reasonableness of a significant assumption by developing an expectation of that assumption, the auditor should have a reasonable basis for that expectation.

Note: Paragraph .A10 in Appendix A of this standard sets forth additional requirements related to evaluating unobservable inputs used in the valuation of financial instruments.

---

<sup>15</sup> The understanding of the company and its environment obtained in performing the procedures required by AS 2110.07-.09 can provide information relevant to evaluating the reasonableness of significant assumptions pursuant to paragraphs .16b.i and .16b.ii of this standard.



.17 When a significant assumption is based on the company's intent and ability to carry out a particular course of action, the auditor should take into account the following factors in evaluating the reasonableness of the assumption:

- a. The company's past history of carrying out its stated intentions;
- b. The company's written plans or other relevant documentation, such as budgets or minutes;
- c. The company's stated reasons for choosing a particular course of action; and
- d. The company's ability to carry out a particular course of action, which includes consideration of whether:
  - i. The company has the financial resources and other means to carry out the action;
  - ii. Legal, regulatory, or contractual restrictions could affect the company's ability to carry out the action; and
  - iii. The company's plans require the action of third parties and, if so, whether those parties are committed to those actions.

.18 For critical accounting estimates,<sup>16</sup> the auditor should obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect.<sup>17</sup> The

---

<sup>16</sup> See paragraph .A3 of AS 1301, *Communications with Audit Committees*.

<sup>17</sup> See U.S. Securities and Exchange Commission, Financial Reporting Release No. 72, *Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations* (Dec. 19, 2003), 68 FR 75056 (Dec. 29, 2003), at Section V ("Critical Accounting Estimates") for management's responsibilities related to critical accounting estimates.





PCAOB Release 2017-002

June 1, 2017

Appendix 1—Proposed Auditing Standard

Page A1–9

auditor should take that understanding into account when evaluating the reasonableness of the significant assumptions and potential management bias.<sup>18</sup>

### **Company's Use of a Specialist or Third-Party Pricing Information**

.19 *Using the Work of a Company Specialist.* When a specialist employed or engaged by the company assists the company in developing an accounting estimate, the auditor should also take into account the work of the specialist in determining the evidence needed in testing the company's process. This includes testing and evaluating the company specialist's work in conjunction with testing the company's process.

Note: [Proposed Appendix B to AS 1105 – See PCAOB Release No. 2017-003] describes the auditor's responsibilities for using the work of a company's specialist as audit evidence to support a conclusion regarding a relevant assertion of a significant account or disclosure.

.20 *Using Pricing Information from a Third Party for Valuation of Financial Instruments.* When the auditor is auditing the fair values of financial instruments, the company's use of pricing information from third-party pricing sources affects the necessary procedures for testing the company's process. When third-party pricing information used by the company is significant to the valuation of financial instruments, the auditor should evaluate whether the company has used that information appropriately and whether it provides sufficient appropriate audit evidence. Paragraphs .A2-.A9 in Appendix A of this standard set forth procedures for evaluating whether third-party pricing information provides sufficient appropriate audit evidence.<sup>19</sup>

### ***Developing an Independent Expectation of the Estimate***

.21 Developing an independent expectation involves the auditor using some or all of his or her own methods, data, and assumptions to develop an expectation of the estimate for comparison to the company's estimate. The auditor's responsibilities with

---

<sup>18</sup> See AS 2810. 27.

<sup>19</sup> If the third party is a service organization that is part of the company's information system over financial reporting, AS 2601, *Consideration of an Entity's Use of a Service Organization*, describes the auditor's responsibilities for obtaining an understanding of controls at the service organization.





respect to developing an independent expectation depend on the source of the methods, data, and assumptions used, as discussed below.

Note: In developing an independent expectation, the auditor should take into account the requirements of the applicable financial reporting framework and the auditor's understanding of the company's process, including the significant assumptions used by the company, so that the auditor's expectation considers the factors relevant to the estimate.

### **Independent Assumptions and Methods of the Auditor**

.22 When the auditor independently derives assumptions or uses his or her own method in developing an independent expectation, the auditor should have a reasonable basis for the assumptions and method used.

### **Data and Assumptions Obtained from a Third Party**

.23 If the auditor uses data or assumptions obtained from a third party in developing an independent expectation, the auditor should evaluate the relevance and reliability of the data and assumptions obtained in accordance with AS 1105.

Note: If the auditor develops an independent expectation of the fair value of financial instruments using pricing information from a third party, the auditor should evaluate whether the pricing information provides sufficient appropriate audit evidence. Paragraphs .A2-.A9 in Appendix A of this standard set forth procedures for evaluating whether third-party pricing information provides sufficient appropriate audit evidence.

### **Use of Company Data, Assumptions, or Methods**

.24 If the auditor uses data produced by the company, significant assumptions used by the company, or the company's methods in developing an independent expectation, the auditor should:

- a. Test the data in accordance with paragraphs .12-.14 of this standard;
- b. Evaluate the reasonableness of the significant assumptions in accordance with paragraphs .16-.18 of this standard; and
- c. Evaluate the company's methods in accordance with paragraphs .10-.11 of this standard.



Note: If the company's data, assumptions, or methods were those of a company's specialist, the auditor should also comply with the requirements in [Proposed Appendix B to AS 1105 – See PCAOB Release No. 2017-003].

### **Developing an Independent Expectation as a Range**

.25 If the auditor's independent expectation consists of a range rather than a point estimate, the auditor should determine that the range is appropriate for identifying a misstatement of the accounting estimate and supported by sufficient appropriate audit evidence.<sup>20</sup>

### **Comparing the Auditor's Independent Expectation to the Company's Accounting Estimate**

.26 The auditor should compare the auditor's independent expectation to the company's estimate and should evaluate the differences in accordance with AS 2810.13.<sup>21</sup>

### **Evaluating Audit Evidence from Events or Transactions Occurring After the Measurement Date**

.27 Events and transactions that occur after the measurement date can provide relevant evidence to the extent they reflect conditions at the measurement date.<sup>22</sup>

---

<sup>20</sup> See *generally* AS 2810.13, which describes the auditor's responsibilities for evaluating misstatements relating to accounting estimates.

<sup>21</sup> See *also* paragraph .30 of this standard.

<sup>22</sup> Evaluating audit evidence from events or transactions occurring after the measurement date, as contemplated in this standard, is a substantive test and thus differs from the review of subsequent events performed pursuant to AS 2801, *Subsequent Events*. See *also* paragraph .11 of AS 1015, *Due Professional Care in the Performance of Work* (as proposed to be amended – see Appendix 2), which provides that the auditor's evaluation of accounting estimates is to be based on information that could reasonably be expected to be available through the date of the auditor's report.



PCAOB Release 2017-002

June 1, 2017

Appendix 1—Proposed Auditing Standard

Page A1–12

.28 When the auditor obtains audit evidence from events or transactions that occur after the measurement date, the auditor should evaluate whether the audit evidence is sufficient, reliable, and relevant to the company's accounting estimate and whether the evidence supports or contradicts the company's estimate.

.29 In evaluating whether an event or transaction provides evidence relevant<sup>23</sup> to the accounting estimate at the measurement date, the auditor should take into account changes in the company's circumstances and other relevant conditions between the event or transaction date and the measurement date.

Note: As the length of time from the measurement date increases, the likelihood that events and conditions have changed during the intervening period also increases.

### ***Evaluating Audit Results***

.30 AS 2810 requires the auditor to evaluate the results of audit procedures performed on accounting estimates. This includes:

- a. Evaluating identified misstatements;<sup>24</sup>
- b. Evaluating the qualitative aspects of the company's accounting practices, including bias in management's judgments about the amounts and disclosures in the financial statements;<sup>25</sup>
- c. Evaluating bias in accounting estimates;<sup>26</sup> and
- d. Evaluating the presentation of the financial statements, including the disclosures and whether the financial statements contain the information

---

<sup>23</sup> AS 1105.07 provides factors regarding the relevance of audit evidence.

<sup>24</sup> See AS 2810.10-.23, which discuss accumulating and evaluating identified misstatements.

<sup>25</sup> See AS 2810.24-.26, which discuss evaluating the qualitative aspects of the company's accounting practices.

<sup>26</sup> See AS 2810.27.



PCAOB Release 2017-002  
June 1, 2017  
Appendix 1—Proposed Auditing Standard  
Page A1–13

essential for a fair presentation of the financial statements in conformity with the applicable financial reporting framework.<sup>27</sup>

.31 Evaluating bias in accounting estimates includes evaluating bias in estimates individually and in aggregate. It also includes evaluating whether bias results from the cumulative effect of changes in estimates.<sup>28</sup>

---

<sup>27</sup> See AS 2810.31.

<sup>28</sup> See AS 2810.27.



## **APPENDIX A—Special Topics**

### ***Identifying and Assessing Risks of Material Misstatement Related to the Fair Value of Financial Instruments***

.A1 To identify and assess risks of material misstatement related to the fair value of financial instruments, the auditor should obtain an understanding of the nature of the financial instruments being valued. Matters that the auditor should take into account include:

- a. The terms and characteristics of the financial instrument;
- b. The extent to which the fair value of the financial instrument is based on inputs that are observable directly or indirectly; and
- c. Other factors affecting the valuation of the financial instrument, such as credit or counterparty risk, market risk, and liquidity risk.

Note: In general, fair values of financial instruments based on trades of identical financial instruments in an active market have a lower risk of material misstatement than fair values derived from observable trades of similar financial instruments or unobservable inputs.

### ***Use of Pricing Information from Third Parties as Audit Evidence***

.A2 When the auditor uses pricing information from a third party to develop an independent expectation or tests pricing information provided by a third party used by management,<sup>1</sup> the auditor should perform procedures to determine whether the pricing information provides sufficient appropriate<sup>2</sup> audit evidence to respond to the risks of material misstatement.

---

<sup>1</sup> If the third party is a service organization that is part of the company's information system over financial reporting, AS 2601, *Consideration of an Entity's Use of a Service Organization*, describes the auditor's responsibilities for obtaining an understanding of controls at the service organization.

<sup>2</sup> See paragraph .06 of AS 1105, *Audit Evidence*, which states that appropriateness is the measure of the quality of audit evidence, i.e., its relevance and



.A3 The following paragraphs address pricing information from:

- a. Organizations that routinely provide uniform pricing information to users, generally on a subscription basis ("pricing services");<sup>3</sup> and
- b. Brokers or dealers.

### Using Pricing Information from Pricing Services

.A4 The reliability of audit evidence depends on the nature and source of the evidence and the circumstances under which it is obtained.<sup>4</sup> The following factors affect the reliability of pricing information provided by a pricing service:

- a. The experience and expertise of the pricing service relative to the types of financial instruments being valued, including whether the financial instruments being valued are routinely priced by the pricing service;
- b. Whether the methodology used by the pricing service in determining fair value of the financial instrument being tested is in conformity with the applicable financial reporting framework; and
- c. Whether the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service.

---

reliability. To be appropriate, audit evidence must be both relevant and reliable in providing support for the conclusions on which the auditor's opinion is based.

<sup>3</sup> The requirements in [Proposed Appendix B to AS 1105 for an auditor using the work of a company's specialist or Proposed AS 1210, *Using the Work of an Auditor-Engaged Specialist* for an auditor using the work of an auditor-engaged specialist – See PCAOB Release No. 2017-003] apply when a pricing service is engaged to individually develop a price for a specific financial instrument not routinely priced for its subscribers.

<sup>4</sup> See AS 1105.08.



.A5 The relevance of audit evidence refers to its relationship to the assertion or to the objective of the control being tested.<sup>5</sup> The following factors affect the relevance of pricing information provided by a pricing service:

- a. Whether the fair values are based on quoted prices in active markets for identical financial instruments;
- b. When the fair values are based on transactions of similar financial instruments, how those transactions are identified and considered comparable to the financial instrument being valued; and
- c. When no recent transactions have occurred for either the financial instrument being valued or similar financial instruments, or the price was developed using a quote from a broker or dealer, how the fair value was developed, including whether the inputs used represent the assumptions that market participants would use when pricing the financial instrument.

.A6 When the fair values are based on transactions of similar financial instruments, the auditor should perform additional audit procedures to evaluate the process used by the pricing service.

.A7 When there are no recent transactions either for the financial instrument being valued or for similar financial instruments, the auditor should perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of observable and unobservable inputs used by the pricing service.

### **Using Pricing Information from Multiple Pricing Services**

.A8 When pricing information is obtained from multiple pricing services, less information is needed about the particular methods and inputs used by the individual pricing services when the following conditions are met:

- a. There are recent trades of the financial instrument or of financial instruments substantially similar to the financial instrument being tested;

---

<sup>5</sup> See AS 1105.07.



PCAOB Release 2017-002

June 1, 2017

Appendix 1—Proposed Auditing Standard

Page A1–17

- b. The particular financial instrument is routinely priced by several pricing services;
- c. Prices obtained from multiple pricing services are reasonably consistent, taking into account the nature and characteristics of the financial instrument, the methods used, and market conditions; and
- d. The pricing information for the financial instrument is generally based on inputs that are observable.

Note: When the above conditions are not met, the auditor should perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of observable and unobservable inputs for a representative price.

### **Using Pricing Information from a Broker or Dealer**

.A9 When the company's fair value measurement is based on a quote from a broker or dealer ("broker quote"), the relevance and reliability of the evidence provided by the broker quote depend on whether:

- a. The broker or dealer is free of relationships with the company by which company management can directly or indirectly control or significantly influence the broker or dealer;
- b. The broker or dealer making the quote is a market maker that transacts in the same type of financial instrument;
- c. The broker quote reflects market conditions as of the financial statement date;
- d. The broker quote is binding on the broker or dealer; and
- e. There are any restrictions, limitations, or disclaimers in the broker quote and, if so, their nature.<sup>6</sup>

---

<sup>6</sup> See AS 1105.08 (as proposed to be amended – see Appendix 2).





PCAOB Release 2017-002

June 1, 2017

Appendix 1—Proposed Auditing Standard

Page A1–18

Note: Broker quotes generally provide more relevant and reliable evidence when they are timely, binding quotes, without any restrictions, limitations, or disclaimers, from unaffiliated market makers transacting in the same type of financial instrument. If the broker quote does not provide sufficient appropriate audit evidence, the auditor should perform procedures to obtain relevant and reliable pricing information from another pricing source pursuant to the requirements of this appendix.

***Unobservable Inputs***

.A10 When the valuation of a financial instrument includes unobservable inputs that are significant to the valuation, the auditor should obtain an understanding of how unobservable inputs were determined and evaluate the reasonableness of the unobservable inputs by taking into account the following:

- a. Whether modifications made to observable information generally reflect the assumptions that market participants would use when pricing the financial instrument, including assumptions about risk; and
- b. How management determined its fair value measurement, including whether it appropriately considered the information available.



PCAOB Release 2017-002  
 June 1, 2017  
 Appendix 2—Proposed Amendments  
 Page A2–1

## **APPENDIX 2—Proposed Amendments to PCAOB Auditing Standards Related to the Proposed Auditing Standard**

In connection with the Proposed Auditing Standard AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements* ("proposed auditing standard"), the Board is proposing amendments to several of its auditing standards to conform to the requirements of the proposed auditing standard.

The proposed auditing standard would retitle and replace AS 2501, *Auditing Accounting Estimates*; supersede AS 2502, *Auditing Fair Value Measurements and Disclosures*) and AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*; and rescind AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501*.

Language that would be deleted by the proposed amendments is ~~struck through~~. Language that would be added is underlined. The presentation of proposed amendments to PCAOB standards by showing deletions and additions to existing sentences, paragraphs, and footnotes is intended to assist the reader in easily comprehending the Board's proposed changes to the auditing standards and interpretation. The Board's proposed amendments consist of only the deleted or added language. This presentation does not constitute or represent a proposal of all or of any other part of the auditing standard or interpretation as amended by this proposal.

The Board is requesting comments on all aspects of the proposed amendments.<sup>1</sup>

---

<sup>1</sup> A number of the Board's pending rulemaking projects include proposals that would supersede, amend or delete paragraphs of PCAOB auditing standards for which other proposed amendments are included in this appendix. These projects include *The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion and Related Amendments to PCAOB Standards*, PCAOB Release No. 2017-001 (June 1, 2017) and *Proposed Amendments Relating to the Supervision of Audits Involving Other Auditors and Proposed Auditing Standard – Dividing Responsibility for the Audit with Another Accounting Firm*, PCAOB Release No. 2016-002 (Apr. 12, 2016). If, prior to the conclusion of this rulemaking, the Board adopts standards and related amendments that affect the other proposed amendments in this release, the Board may make conforming changes to these other proposed amendments.



PCAOB Release 2017-002  
 June 1, 2017  
 Appendix 2—Proposed Amendments  
 Page A2–2

### Auditing Standards Proposed to be Amended<sup>2</sup>

PCAOB Standard	Paragraph, Section, or Appendix	Subject Heading of Paragraph(s) or Appendix Affected	Action	Page
AS 1015, <i>Due Professional Care in the Performance of Work</i>	.11	Reasonable Assurance	Amend AS 1015.11;  Make conforming amendment to footnote 5.	p. A2-6
AS 1105, <i>Audit Evidence</i>	.08	Relevance and Reliability	Amend	p. A2-7
AS 1105	Appendix A	Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results	Add	p. A2-7

---

<sup>2</sup> This table is a reference tool for the proposed amendments that follow. "Add" refers to a new paragraph, appendix, or other text to be added to existing PCAOB standards. "Amend" refers to substantive changes to existing PCAOB standards. "Make conforming amendment" refers to technical changes to existing PCAOB standards, such as changes to cross-references and defined terms.



PCAOB Release 2017-002  
 June 1, 2017  
 Appendix 2—Proposed Amendments  
 Page A2–3

PCAOB Standard	Paragraph, Section, or Appendix	Subject Heading of Paragraph(s) or Appendix Affected	Action	Page
AS 1301, <i>Communication with Audit Committees</i>	.12	Accounting Policies and Practices, Estimates, and Significant Unusual Transactions	Make conforming amendment	p. A2-10
AS 1301	.13	Auditor's Evaluation of the Quality of the Company's Financial Reporting	Make conforming amendment	p. A2-11
AS 1301	Appendix B	Appendix B- Communications with Audit Committees Required By Other PCAOB Rules and Standard	Make conforming amendment	p. A2-12
AS 2110, <i>Identifying and Assessing Risks of Material Misstatement</i>	.28	Information and Communication	Amend	p. A2-13
AS 2110	.52	Discussion of the Potential for Material Misstatement Due to Fraud	Amend	p. A2-15



PCAOB Release 2017-002  
June 1, 2017  
Appendix 2—Proposed Amendments  
Page A2–4

<b>PCAOB Standard</b>	<b>Paragraph, Section, or Appendix</b>	<b>Subject Heading of Paragraph(s) or Appendix Affected</b>	<b>Action</b>	<b>Page</b>
AS 2110	.60A	Identifying Significant Accounts and Disclosures and Their Relevant Assertions	Add	p. A2-16
AS 2301, <i>The Auditor's Responses to the Risks of Material Misstatement</i>	.36	Substantive Procedures	Amend	p. A2-17
AS 2301	.38	Substantive Procedures	Make conforming amendment	p. A2-17
AS 2301	.40	Nature of Substantive Procedures	Make conforming amendment	p. A2-18
AS 2401, <i>Consideration of Fraud in a Financial Statement Audit</i>	.54	Additional Examples of Audit Procedures Performed to Respond to Assessed Fraud Risks Relating to Fraudulent Financial Reporting	Make conforming amendment	p. A2-18



PCAOB Release 2017-002  
 June 1, 2017  
 Appendix 2—Proposed Amendments  
 Page A2–5

PCAOB Standard	Paragraph, Section, or Appendix	Subject Heading of Paragraph(s) or Appendix Affected	Action	Page
AS 2401	.63	Audit Procedures Performed to Specifically Address the Risk of Management Override of Controls	Make conforming amendment	p. A2-19
AS 2401	.64	Audit Procedures Performed to Specifically Address the Risk of Management Override of Controls	Amend	p. A2-20
AS 2805, <i>Management Representations</i>	.06	Obtaining Written Representations	Amend	p. A2-20
AS 4105, <i>Reviews of Interim Financial Information</i>	.B1	Appendix B – Unusual or Complex Situations to Be Considered by the Accountant When Conducting a Review of Interim Financial Information	Make conforming amendment	p. A2-21



## **AS 1015, *Due Professional Care in the Performance of Work***

\* \* \*

### **Reasonable Assurance**

\* \* \*

.11

The independent auditor's objective is to obtain sufficient appropriate evidential matter to provide him or her with a reasonable basis for forming an opinion. The nature of most evidence derives, in part, from the concept of selective testing of the data being audited, which involves judgment regarding both the areas to be tested and the nature, timing, and extent of the tests to be performed. In addition, judgment is required in interpreting the results of audit testing and evaluating audit evidence. Even with good faith and integrity, mistakes and errors in judgment can be made. Furthermore, many accounting presentations contain accounting estimates, the measurement of which is inherently uncertain and depends on the outcome of future events. The auditor exercises professional judgment in evaluating the reasonableness of accounting estimates in significant accounts and disclosures based on information that could reasonably be expected to be available through the date of the auditor's report ~~prior to the completion of field work~~.<sup>5</sup> As a result of these factors, in the great majority of cases, the auditor has to rely on evidence that is persuasive rather than convincing.

<sup>5</sup> ~~See AS 2501, *Auditing Accounting Estimates*.~~ See AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, which discusses the auditor's responsibility to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework, and are free from bias that results in material misstatement.

## **AS 1105, *Audit Evidence***

\* \* \*

### **Sufficient Appropriate Audit Evidence**

\* \* \*



## Relevance and Reliability

\* \* \*

.08 *Reliability.* The reliability of evidence depends on the nature and source of the evidence and the circumstances under which it is obtained. For example, in general:

- Evidence obtained from a knowledgeable source that is independent of the company is more reliable than evidence obtained only from internal company sources.
- The reliability of information generated internally by the company is increased when the company's controls over that information are effective.
- Evidence obtained directly by the auditor is more reliable than evidence obtained indirectly.
- Evidence provided by original documents is more reliable than evidence provided by photocopies or facsimiles, or documents that have been filmed, digitized, or otherwise converted into electronic form, the reliability of which depends on the controls over the conversion and maintenance of those documents.

Note: If a third party provides evidence to an auditor subject to restrictions, limitations, or disclaimers, the auditor should evaluate the effect of the restrictions, limitations, or disclaimers on the reliability of that evidence.

## **Appendix A—Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results**

.A1 This appendix describes the auditor's responsibilities for obtaining sufficient appropriate audit evidence in certain situations in which the valuation of an investment selected for testing is based on the investee's financial condition or operating results. The nature and extent of audit procedures necessary to obtain sufficient appropriate audit evidence in these situations depend on:

- a. The significance of the investee's financial condition and operating results to the valuation of the investment;
- b. The risk of material misstatement of the associated investment; and





- c. The availability of financial statements of the investee and if so, their relevance and reliability, including whether the financial statements were audited.

Note: Examples of situations in which the valuation of an investment is based on the investee's financial condition or operating results include: (1) certain investments accounted for by the equity method;<sup>1</sup> (2) investments accounted for by the cost method for which there is a risk of material misstatement regarding impairment; and (3) investments measured at fair value for which the investee's financial condition or operating results are a significant input into the fair value determination.

Note: As the significance of the investee's financial condition and operating results to the valuation of the investment and the risk of material misstatement of the associated investment increase, the persuasiveness of the evidence needed by the auditor also increases.

.A2 The auditor should read available financial statements of the investee to obtain an understanding of:

- a. Whether the investee's financial statements were prepared under the same financial reporting framework the company uses;
- b. The period covered by the financial statements;
- c. The extent to which the investee's financial condition or operating results affect the valuation of the company's investment; and
- d. If the investee's financial statements were audited, whether the report of the investee's auditor indicates that audit was performed under PCAOB standards and expressed an unqualified opinion.

.A3 The auditor should:

- a. Perform procedures to identify significant transactions between the company and the investee and to evaluate the accounting for and disclosure of those transactions;
- b. With respect to subsequent events and transactions of the investee occurring after the date of the investee's financial statements but before the date of the company's auditor's report, read available interim financial



statements of the investee and other available information and make inquiries of the investee to identify subsequent events and transactions that could be material to the company's financial statements;<sup>2</sup>

- c. If the period covered by the company's financial statements differs from the period of the investee's financial statements, evaluate the effects of that difference on the company's financial statements, taking into account the requirements of the applicable financial reporting framework, and the relevance of the evidence provided by the investee's financial statements; and
- d. If the valuation of the company's investment reflects factors<sup>3</sup> other than the financial condition and operating results reported in the investee's financial statements, perform procedures with respect to those factors.

.A4 If the investee's audited financial statements are significant to the valuation of the company's investment, the auditor should determine whether the audit of the investee provides sufficient appropriate audit evidence for the audit of the company's financial statements by performing the following procedures:

- a. Obtain and evaluate information about the professional reputation and standing of the investee's auditor; and
- b. Obtain information about the procedures the investee's auditor performed and the results thereof or review the audit documentation of the investee's auditor.

Note: In an audit of an investment company,<sup>4</sup> in which an investee fund's financial statements are significant to the valuation of the investee fund presented by the investment company at fair value or an accepted alternative,<sup>5</sup> unless the auditor has doubt about the reputation and standing of the investee's auditor, the auditor may test the investment company's procedures for understanding the characteristics of underlying investments of the investee fund and assessing the investee fund's valuation process, rather than obtain information about the audit of the investee or review audit documentation.

.A5 If the investee's financial statements are not audited or the audited financial statements do not provide sufficient appropriate audit evidence, the investor's auditor should perform, or request that the investor arrange with the investee to have another



auditor apply, additional audit procedures as necessary to obtain sufficient appropriate audit evidence.

<sup>1</sup> This section does not apply to investments accounted for under the equity method if (1) the investor's equity in the underlying net assets and its share of the earnings or losses of the investee are recorded based on investee financial statements that are audited by an auditor other than the principal auditor and (2) the other auditor is supervised under AS 1201, *Supervision of the Audit Engagement*, or the work and report of the other auditor are used under AS 1205, *Part of the Audit Performed by Other Independent Auditors*. AS 1201 or AS 1205, as applicable, sets forth requirements in those situations.

<sup>2</sup> See paragraphs .05-.06 of AS 2801, *Subsequent Events*, for examples of events and transactions that require disclosure to the financial statements.

<sup>3</sup> Examples of such factors may include valuation multiples and basis differences, including differences in applicable financial reporting frameworks.

<sup>4</sup> An example of an investment company that invests in other investment companies is a fund of funds.

<sup>5</sup> The applicable financial reporting framework may permit the use of another method for valuing these investments, for example, Financial Accounting Standards Board Accounting Standards Codification, Topic 820, *Fair Value Measurement*, Paragraph 10-35-59, which allows using net asset value per share to estimate the value of an investment.

## **AS 1301, *Communication with Audit Committees***

\* \* \*

### **Results of the Audit**

#### **Accounting Policies and Practices, Estimates, and Significant Unusual Transactions**

.12 The auditor should communicate to the audit committee the following matters:



\* \* \*

**c. Critical accounting estimates.**

- (1) A description of the process management used to develop critical accounting estimates;<sup>17</sup>
- (2) Management's significant assumptions used in critical accounting estimates that have a high degree of subjectivity;<sup>18</sup> and
- (3) Any significant changes management made to the processes used to develop critical accounting estimates or significant assumptions, a description of management's reasons for the changes, and the effects of the changes on the financial statements.<sup>19</sup>

<sup>17</sup> ~~See AS 2501, Auditing Accounting Estimates, which discusses the auditor's responsibilities to obtain and evaluate sufficient appropriate audit evidence to support significant accounting estimates in an audit of financial statements. See AS 2501, Auditing Accounting Estimates, Including Fair Value Measurements, which discusses the auditor's responsibility to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework, and are free from bias that results in material misstatement.~~

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

\* \* \*

**Auditor's Evaluation of the Quality of the Company's Financial Reporting**

.13 The auditor should communicate to the audit committee the following matters:

\* \* \*

- c. Conclusions regarding critical accounting estimates. The basis for the auditor's conclusions regarding the reasonableness of the critical accounting estimates.<sup>23</sup>



<sup>23</sup> ~~See AS 2501, which discusses the auditor's responsibilities to obtain and evaluate sufficient appropriate audit evidence to support significant accounting estimates in an audit of financial statements. See AS 2501, which discusses the auditor's responsibility to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework, and are free from bias that results in material misstatement.~~

\* \* \*

## **APPENDIX B—COMMUNICATIONS WITH AUDIT COMMITTEES REQUIRED BY OTHER PCAOB RULES AND STANDARDS**

This appendix identifies other PCAOB rules and standards related to the audit that require communication of specific matters between the auditor and the audit committee.

- AS 6115, *Reporting on Whether a Previously Reported Material Weakness Continues to Exist*, paragraphs .60, .62, and .64
- AS 2201, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements*, paragraphs .78-.81, .91, .C7, and .C14
- AS 2110, *Identifying and Assessing Risks of Material Misstatement*, paragraphs .05f and .54-.57
- AS 2410, *Related Parties*, paragraphs .07 and .19
- Attestation Standard No. 1, *Examination Engagements Regarding Compliance Reports of Brokers and Dealers*, paragraphs 34 and 35
- Attestation Standard No. 2, *Review Engagement Regarding Exemption Reports of Brokers and Dealers*, paragraph 15
- PCAOB Rule 3524, *Audit Committee Pre-approval of Certain Tax Services*
- PCAOB Rule 3525, *Audit Committee Pre-approval of Non-audit Services Related to Internal Control Over Financial Reporting*



- PCAOB Rule 3526, *Communication with Audit Committees Concerning Independence*
- AS 2401, *Consideration of Fraud in a Financial Statement Audit*, paragraphs .79-.81
- AS 2405, *Illegal Acts by Clients*, paragraphs .08, .17, and .20
- AS 1305, *Communications About Control Deficiencies in an Audit of Financial Statements*, paragraphs .04-.07 and .09
- ~~AS 2502, *Auditing Fair Value Measurements and Disclosures*, paragraph .50~~
- AS 2805, *Management Representations*, paragraph .05
- AS 2710, *Other Information in Documents Containing Audited Financial Statements*, paragraphs .04 and .06
- AS 4101, *Responsibilities Regarding Filings Under Federal Securities Statutes*, paragraph .13
- AS 4105, *Reviews of Interim Financial Information*, paragraphs .08-.09, .30-.31, and .33-.36

### **AS 2110, *Identifying and Assessing Risks of Material Misstatement***

\* \* \*

#### **Information and Communication**

.28 *Information System Relevant to Financial Reporting.* The auditor should obtain an understanding of the information system, including the related business processes, relevant to financial reporting, including:

- a. The classes of transactions in the company's operations that are significant to the financial statements;
- b. The procedures, within both automated and manual systems, by which those transactions are initiated, authorized, processed, recorded, and reported;



- c. The related accounting records, supporting information, and specific accounts in the financial statements that are used to initiate, authorize, process, and record transactions;
- d. How the information system captures events and conditions, other than transactions,<sup>16</sup> that are significant to the financial statements; ~~and~~
- e. Whether the related accounts involve accounting estimates and if so, the processes used to develop accounting estimates, including:
  - (1) The methods used, which may include models;
  - (2) The data and assumptions, including the source from which they are derived; and
  - (3) The extent to which the company uses specialists or other third parties, including the nature of the service provided and the extent to which the third parties use company data and assumptions; and
- f. The period-end financial reporting process.

Note: Appendix B discusses additional considerations regarding manual and automated systems and controls.

Note: The requirements in AS 2601 with respect to the auditor's responsibilities for obtaining an understanding of controls at the service organization apply when the company uses a service organization that is part of the company's information system over financial reporting.

Note: For critical accounting estimates,<sup>17</sup> paragraph .18 of AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, provides that the auditor should obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect<sup>18</sup> and take that understanding into account when evaluating the reasonableness of significant assumptions and potential management bias.

<sup>17</sup> See paragraph .A3 of AS 1301, *Communications with Audit Committees*.





PCAOB Release 2017-002  
 June 1, 2017  
 Appendix 2—Proposed Amendments  
 Page A2–15

<sup>18</sup> See U.S. Securities and Exchange Commission, *Financial Reporting Release No. 72, Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations* (Dec. 19, 2003), 68 FR 75056 (Dec. 29, 2003), at Section V ("Critical Accounting Estimates").

\* \* \*

### **Discussion of the Potential for Material Misstatement Due to Fraud**

.52 The discussion among the key engagement team members about the potential for material misstatement due to fraud should occur with an attitude that includes a questioning mind, and the key engagement team members should set aside any prior beliefs they might have that management is honest and has integrity. The discussion among the key engagement team members should include:

- An exchange of ideas, or "brainstorming," among the key engagement team members, including the engagement partner, about how and where they believe the company's financial statements might be susceptible to material misstatement due to fraud, how management could perpetrate and conceal fraudulent financial reporting, and how assets of the company could be misappropriated, including (a) the susceptibility of the financial statements to material misstatement through related party transactions, and (b) how fraud might be perpetrated or concealed by omitting or presenting incomplete or inaccurate disclosures, and (c) how the financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures;
- A consideration of the known external and internal factors affecting the company that might (a) create incentives or pressures for management and others to commit fraud, (b) provide the opportunity for fraud to be perpetrated, and (c) indicate a culture or environment that enables management to rationalize committing fraud;
- A consideration of the risk of management override; and
- A consideration of the potential audit responses to the susceptibility of the company's financial statements to material misstatement due to fraud.





\* \* \*

### **Identifying Significant Accounts and Disclosures and Their Relevant Assertions**

.60 To identify significant accounts and disclosures and their relevant assertions in accordance with paragraph .59e, the auditor should evaluate the qualitative and quantitative risk factors related to the financial statement line items and disclosures. Risk factors relevant to the identification of significant accounts and disclosures and their relevant assertions include:

- Size and composition of the account;
- Susceptibility to misstatement due to error or fraud;
- Volume of activity, complexity, and homogeneity of the individual transactions processed through the account or reflected in the disclosure;
- Nature of the account or disclosure;
- Accounting and reporting complexities associated with the account or disclosure;
- Exposure to losses in the account;
- Possibility of significant contingent liabilities arising from the activities reflected in the account or disclosure;
- Existence of related party transactions in the account; and
- Changes from the prior period in account and disclosure characteristics.

.60A Additional risk factors relevant to the identification of significant accounts and disclosures involving accounting estimates include the following:

- a. The degree of uncertainty associated with the future occurrence or outcome of events and conditions underlying the significant assumptions;
- b. The complexity of the process for developing the accounting estimate;



- c. The number and complexity of significant assumptions associated with the process;
- d. The degree of subjectivity associated with significant assumptions (for example, because of significant changes in the related events and conditions or a lack of available observable inputs); and
- e. If forecasts are important to the estimate, the length of the forecast period and degree of uncertainty regarding trends affecting the forecast.

**AS 2301, *The Auditor's Responses to the Risks of Material Misstatement***

\* \* \*

**Substantive Procedures**

.36 The auditor should perform substantive procedures for each relevant assertion of each significant account and disclosure, regardless of the assessed level of control risk.

Note: Performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.

\* \* \*

.38 Internal control over financial reporting has inherent limitations,<sup>18</sup> which, in turn, can affect the evidence that is needed from substantive procedures. For example, more evidence from substantive procedures ordinarily is needed for relevant assertions that have a higher susceptibility to management override or to lapses in judgment or breakdowns resulting from human failures.<sup>49</sup>

<sup>18</sup> AS 2201.A5.

<sup>49</sup> ~~See, e.g., paragraph .14 of AS 2502, Auditing Fair Value Measurements and Disclosures.~~



## Nature of Substantive Procedures

\* \* \*

.40 Taking into account the types of potential misstatements in the relevant assertions that could result from identified risks, as required by paragraph .09.b., can help the auditor determine the types and combination of substantive audit procedures that are necessary to detect material misstatements in the respective assertions.<sup>19</sup>

<sup>19</sup> See, e.g., AS 2501, Auditing Accounting Estimates, Including Fair Value Measurements, which discusses the auditor's responsibility to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework, and are free from bias that results in material misstatement.

## AS 2401, Consideration of Fraud in a Financial Statement Audit

\* \* \*

## Responding to Assessed Fraud Risks

\* \* \*

## Responses Involving the Nature, Timing, and Extent of Procedures to Be Performed

\* \* \*

## Additional Examples of Audit Procedures Performed to Respond to Assessed Fraud Risks Relating to Fraudulent Financial Reporting

.54 The following are additional examples of audit procedures that might be performed in response to assessed fraud risks relating to fraudulent financial reporting:

\* \* \*

- *Management estimates.* The auditor may identify a fraud risk involving the development of management estimates. This risk may affect a number of accounts and assertions, including asset valuation, estimates relating to specific transactions (such as acquisitions, restructurings, or disposals of



a segment of the business), and other significant accrued liabilities (such as pension and other postretirement benefit obligations, or environmental remediation liabilities). The risk may also relate to significant changes in assumptions relating to recurring estimates. ~~As indicated in AS 2501, Auditing Accounting Estimates, estimates are based on subjective as well as objective factors and there is a potential for bias in the subjective factors, even when management's estimation process involves competent personnel using relevant and reliable data.~~

In addressing an identified fraud risk involving accounting estimates, the auditor may want to supplement the audit evidence otherwise obtained (~~see AS 2501.09 through .14~~ see AS 2501, Auditing Accounting Estimates, Including Fair Value Measurements). In certain circumstances (for example, evaluating the reasonableness of management's estimate of the fair value of a derivative), it may be appropriate to engage a specialist or develop an independent estimate for comparison to management's estimate. Information gathered about the entity and its environment may help the auditor evaluate the reasonableness of such management estimates and underlying judgments and assumptions.

A retrospective review of similar management judgments and assumptions applied in prior periods (see paragraphs .63 through .65) may also provide insight about the reasonableness of judgments and assumptions supporting management estimates.

\* \* \*

## **Audit Procedures Performed to Specifically Address the Risk of Management Override of Controls**

\* \* \*

**.63 *Reviewing accounting estimates for biases that could result in material misstatement due to fraud.*** In preparing financial statements, management is responsible for making a number of judgments or assumptions that affect accounting estimates<sup>24</sup> and for monitoring the reasonableness of such estimates on an ongoing basis. Fraudulent financial reporting often is accomplished through intentional misstatement of accounting estimates. AS 2810.24 through .27 discuss the auditor's responsibilities for assessing bias in accounting estimates and the effect of bias on the financial statements.



<sup>24</sup> ~~See AS 2501, *Auditing Accounting Estimates*, paragraphs .02 and .16, for a definition of accounting estimates and a listing of examples.~~

.64 The auditor should perform a retrospective review of ~~significant accounting estimates reflected in the financial statements of the prior year~~ the accounting estimates in significant accounts and disclosures<sup>24</sup> by comparing the prior year's estimates to actual results, if any, to determine whether management's judgments and assumptions relating to the estimates indicate a possible bias on the part of management. ~~The significant accounting estimates selected for testing should include those that are based on highly sensitive assumptions or and are otherwise significantly affected by judgments made by management.~~ With the benefit of hindsight, a retrospective review should provide the auditor with additional information about whether there may be a possible bias on the part of management in making the current-year estimates. This review, however, is not intended to call into question the auditor's professional judgments made in the prior year that were based on information available at the time.

<sup>24</sup> See AS 2110.60, which describes requirements related to the identification of significant accounts and disclosures.

### **AS 2502, *Auditing Fair Value Measurements and Disclosures***

AS 2502, *Auditing Fair Value Measurements and Disclosures* as amended, is superseded.

### **AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities***

AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investment in Securities* as amended, is superseded.

### **AS 2805, *Management Representations***

\* \* \*

### **Obtaining Written Representations**

\* \* \*

.06 In connection with an audit of financial statements presented in accordance with generally accepted accounting principles, specific representations should relate to the following matters:



PCAOB Release 2017-002  
June 1, 2017  
Appendix 2—Proposed Amendments  
Page A2–21

\* \* \*

*Recognition, Measurement, and Disclosure*

\* \* \*

S-1. The appropriateness of the methods, the consistency in application, the accuracy and completeness of data, and the reasonableness of significant assumptions used by the company in developing accounting estimates.

**AS 4105, *Reviews of Interim Financial Information***

\* \* \*

**Appendix B - Unusual or Complex Situations to Be Considered by the Accountant When Conducting a Review of Interim Financial Information**

**.55**

B1. The following are examples of situations about which the accountant would ordinarily inquire of management:

- Business combinations
- New or complex revenue recognition methods
- Impairment of assets
- Disposal of a segment of a business
- Use of derivative instruments and hedging activities
- Sales and transfers that may call into question the classification of investments in securities, including management's intent and ability with respect to the remaining securities classified as held to maturity
- Computation of earnings per share in a complex capital structure
- Adoption of new stock compensation plans or changes to existing plans
- Restructuring charges taken in the current and prior quarters



PCAOB Release 2017-002  
 June 1, 2017  
 Appendix 2—Proposed Amendments  
 Page A2–22

- Significant, unusual, or infrequently occurring transactions
- Changes in litigation or contingencies
- Changes in major contracts with customers or suppliers
- Application of new accounting principles
- Changes in accounting principles or the methods of applying them
- Trends and developments affecting accounting estimates,<sup>36</sup> such as allowances for bad debts and excess or obsolete inventories, provisions for warranties and employee benefits, and realization of unearned income and deferred charges
- Compliance with debt covenants
- Changes in related parties or significant new related-party transactions
- Material off-balance-sheet transactions, special-purpose entities, and other equity investments
- Unique terms for debt or capital stock that could affect classification

<sup>36</sup>~~The accountant may wish to refer to the guidance in AS 2501, *Auditing Accounting Estimates*, paragraphs .05 and .06~~

**AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501***

AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501*, as amended, is rescinded.



PCAOB Release No. 2017-002

June 1, 2017

# Appendix 3 - Additional Discussion of Proposed Standard and Proposed Amendments

Page A3-1

## **APPENDIX 3**

### **Additional Discussion of Proposed Standard and Proposed Amendments**

<u>Outline of Contents of This Appendix</u>	<u>Page</u>
I. Introduction	A3-1
II. Proposed Standard	A3-4
III. Proposed Amendments to PCAOB Standards	A3-42

#### **I. Introduction**

This appendix discusses in detail the new auditing standard proposed by the Public Company Accounting Oversight Board ("PCAOB" or "Board") relating to the auditing of accounting estimates, including fair value measurements ("proposed standard"), along with related amendments to other PCAOB standards ("proposed amendments").<sup>1</sup>

The proposed standard would retitle and replace AS 2501, *Auditing Accounting Estimates* ("existing accounting estimates standard"); supersede AS 2502, *Auditing Fair Value Measurements and Disclosures* ("existing fair value standard"), and AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* ("existing derivatives standard");<sup>2</sup> and rescind AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501*.

The proposal builds on the common approaches in the three existing standards and is intended to strengthen PCAOB auditing standards in the following respects:

- Add or revise requirements and provide direction to prompt auditors to devote greater attention to addressing potential management bias in

---

<sup>1</sup> The proposed standard and the proposed amendments are collectively referred to as the "proposal."

<sup>2</sup> The existing accounting estimates standard, existing fair value standard, and existing derivatives standard are referred to collectively herein as the "existing estimates standards."





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-2

accounting estimates, while reinforcing the need for professional skepticism.

- Extend certain key requirements in the existing fair value standard, the newest and most comprehensive of the existing estimates standards, to all accounting estimates in significant accounts and disclosures to reflect a more uniform approach to substantive testing.
- Further integrate the risk assessment standards to focus auditors on estimates with greater risk of material misstatement.
- Make other updates to the requirements for auditing accounting estimates to provide additional clarity and specificity.
- Provide specific requirements and direction to address certain aspects unique to auditing fair values of financial instruments, including the use of information from pricing sources (e.g., pricing services and brokers or dealers).

As previously discussed, the Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements* ("SCP") discussed various issues and potential requirements related to auditing accounting estimates, including fair value measurements, and solicited comments on certain of those issues.<sup>3</sup> Significant comments received in response to the matters raised in the SCP are discussed below.

As noted earlier, the PCAOB has observed that, in many cases, specialists are used to either develop or assist in evaluating various accounting estimates. In a companion release, the Board is proposing amendments to PCAOB auditing standards to strengthen the requirements that apply when auditors use the work of specialists in an audit. In that release, the Board is proposing to amend AS 1105, *Audit Evidence*, to add a new appendix that addresses the auditor's responsibilities when using the work of a company's specialists as audit evidence; amend AS 1201, *Supervision of the Audit Engagement*, to add a new appendix on supervising the work of auditor-employed specialists; and replace AS 1210, *Using the Work of a Specialist*, with an updated

---

<sup>3</sup> See SCP, *Auditing Accounting Estimates and Fair Value Measurements* (Aug. 19, 2014), available on the Board's website.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-3

standard on using the work of auditor-engaged specialists (collectively, "specialist proposal").<sup>4</sup> Certain provisions of the proposed auditing standard in this release include references to proposed amendments in the companion release in order to illustrate how the proposed requirements in the two releases would work together.

*Comparison with Standards of the International Auditing and Assurance Standards Board and the Auditing Standards Board*

This appendix includes a comparison of the proposed requirements with the analogous requirements of the following extant standards issued by the International Auditing and Assurance Standards Board ("IAASB") and the Auditing Standards Board ("ASB") of the American Institute of Certified Public Accountants ("AICPA"):

- IAASB Standards – International Standard on Auditing 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* ("ISA 540"); and
- ASB Standards – AU-C Section 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* ("AU-C Section 540").

The comparison may not represent the views of the IAASB or ASB regarding the interpretation of their standards. Additionally, the information presented in this appendix does not include the application and explanatory material in the IAASB standards or ASB standards.<sup>5</sup>

---

<sup>4</sup> See *Proposed Amendments to Auditing Standards for the Auditor's Use of the Work of Specialists*, PCAOB Release No. 2017-003 (June 1, 2017) ("Specialists Release").

<sup>5</sup> Paragraph A59 of ISA 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing*, indicates that the application and other explanatory material section of the ISAs "does not in itself impose a requirement" but "is relevant to the proper application of the requirements of an ISA." Paragraph .A64 of AU-C Section 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with Generally Accepted Auditing Standards*, states that, although application and other explanatory material "does not in itself impose a requirement, it is relevant to the proper application



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-4

On April 20, 2017, the IAASB published an exposure draft of Proposed ISA 540 (Revised), *Auditing Accounting Estimates and Related Disclosures* ("ED-540").<sup>6</sup> ED-540 includes new requirements related to the auditor's risk assessment procedures and revised and expanded requirements regarding the auditor's response to the assessed risks of material misstatement for accounting estimates. ED-540 also includes amendments to other IAASB standards, including amendments to ISA 500, *Audit Evidence*, to address the audit implications of external information sources as audit evidence.

The Board will monitor developments related to this project, including input received by the IAASB from commenters on ED-540.

## **II. Proposed Standard**

### **A. Scope and Objective**

*See proposed paragraphs .01-.03*

The proposed standard establishes requirements for performing substantive procedures when auditing accounting estimates in significant accounts and disclosures.

The required procedures are intended to be applied to respond to the risks of material misstatement related to accounting estimates in significant accounts and disclosures in financial statements, as identified and assessed pursuant to the requirements of AS 2110, *Identifying and Assessing Risks of Material Misstatement*.

The proposed standard provides a description of the accounting estimates that would be covered by the standard. This description reflects the general characteristics of the variety of accounting estimates, including fair value measurements, included in financial statements. The description includes both the measurement and recognition

---

of the requirements of an AU-C section."

<sup>6</sup> See IAASB Exposure Draft, Proposed International Standard on Auditing 540 (Revised), *Auditing Accounting Estimates and Related Disclosures* (Apr. 20, 2017) (available at <http://www.ifac.org/publications-resources/proposed-international-standard-auditing-540-revised-auditing-accounting>).



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-5

principles relevant to accounting estimates and takes into account circumstances where a decision not to recognize a transaction or event may be based on a calculation or other analysis (for example, when it is determined that no impairment loss exists based on a comparison of the asset's fair value to its carrying value).

The objective of the proposed standard emphasizes the fundamental aspects of auditing accounting estimates under the existing accounting estimates standard, the existing fair value standard and the existing derivatives standard, specifically, testing and evaluating whether accounting estimates (1) are reasonable in the circumstances, (2) have been accounted for and disclosed in conformity with the applicable financial reporting framework, and (3) are free from bias that results in material misstatement.

#### *Comparison with Standards of Other Standard Setters*

The scope and objective of ISA 540 and AU-C Section 540 have some commonality with the corresponding paragraphs of the proposed standard. However, the accounting estimates covered by the proposed standard are expressly linked to significant accounts and disclosures. Also, the objective in the proposed standard encompasses management bias, although the proposed standard, ISA 540, and AU-C Section 540 all have requirements addressing management bias.

#### *Question:*

17. Are the scope and objective of the proposed standard clear?

### **B. Responding to Risks of Material Misstatement**

*See proposed paragraphs .05-.07*

AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*, requires the auditor to design and implement appropriate responses that address risks of material misstatement. The proposed standard provides that applying substantive procedures to accounting estimates in significant accounts and disclosures is part of implementing an appropriate audit response. It also includes the provision from AS 2301 that, as the assessed risk of material misstatement increases, the evidence that the auditor should obtain also increases. The evidence provided by substantive procedures depends on the mix of the nature, timing, and extent of those procedures. The proposed standard also emphasizes that the auditor's response involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-6

The proposed standard is also designed to prompt auditors to plan and perform audit procedures that are responsive to the respective risks. The proposed standard does not prescribe detailed procedures or the extent of procedures, beyond the requirement to respond to the risk. Instead, it describes the basic requirements for testing and evaluating estimates so that auditors can tailor their procedures to respond to the risks.

By aligning with the risk assessment standards and setting forth a framework for testing and evaluating procedures, the proposed standard is designed to require more audit effort for accounting estimates with higher risk of material misstatement, and less audit effort for estimates with lower risk of material misstatement. As noted in the proposed standard, specific risk factors associated with the estimates – for example, subjective assumptions, measurement uncertainty, or complex processes or methods<sup>7</sup> – would affect the auditor's risk assessment and in turn, the required audit effort. For example:

- Under this proposal, testing depreciation expense for a group of assets of the same type with similar usage and condition would generally require less audit effort than testing an asset retirement obligation that involves significant assumptions about costs not yet incurred based on estimation of the probability of future events.
- In testing the valuation of assets acquired and liabilities assumed in a business combination, more audit effort would need to be directed to assets and liabilities whose valuation involves more subjective assumptions, such as identifiable intangible assets and contingent consideration, than to assets with readily determinable values.

The proposed standard also emphasizes the need for auditors to respond to differing risks of material misstatement in the components of an accounting estimate. For example, in allowance for credit losses, risks of material misstatement could vary based on types of assets, nature of the collateral, if any, or size of the outstanding amount. Similarly, in warranty reserves, differing risks of material misstatement may arise from the claim history of multiple types of products, or differences in warranty

---

<sup>7</sup> See paragraph .60A of the proposed amendment to AS 2110 in Appendix 2 of this proposal for examples of specific risk factors.



PCAOB Release No. 2017-002  
June 1, 2017  
Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments  
Page A3-7

terms. Given the susceptibility of many accounting estimates to management bias, the proposed standard also reminds auditors of their existing responsibility to apply professional skepticism when designing and implementing an appropriate audit response.

As discussed in more detail below, the proposed standard would retain the three basic approaches in existing standards for testing accounting estimates:

- Testing the company's process used to develop the accounting estimate;
- Developing an independent expectation of the estimate for comparison to the company's estimate; and
- Evaluating audit evidence from events or transactions occurring after the measurement date related to the accounting estimate for comparison to the company's estimate.

As under the existing PCAOB standards, the proposed standard would allow the auditor to determine the approach or approaches that are appropriate for the particular accounting estimate.<sup>8</sup> Section IV.D.3 of this release discusses comments received on this topic in the SCP and the Board's consideration of potential alternatives.

*Comparison with Standards of Other Standard Setters*

Based on the assessed risk of material misstatement, ISA 540 requires the auditor to determine whether management has appropriately applied the requirements of the applicable financial reporting framework relevant to the accounting estimate.

In responding to the assessed risks of material misstatement, ISA 540 requires the auditor to undertake one or more of the following, taking into account the nature of the accounting estimate:

---

<sup>8</sup> The proposed standard would also carry forward the point from existing PCAOB standards that the auditor's understanding of the process management used to develop the estimate, along with results of tests of relevant controls, should inform the auditor's decisions about the approach he or she takes to auditing an estimate.





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-8

- a. Determine whether events occurring up to the date of the auditor's report provide audit evidence regarding the accounting estimate.
- b. Test how management made the accounting estimate and the data on which it is based. In doing so, the auditor shall evaluate whether:
  - i. The method of measurement used is appropriate in the circumstances; and
  - ii. The assumptions used by management are reasonable in light of the measurement objectives of the applicable financial reporting framework.
- c. Test the operating effectiveness of the controls over how management made the accounting estimate, together with appropriate substantive procedures.
- d. Develop a point estimate or a range to evaluate management's point estimate.

540. AU-C Section 540 contains requirements that are substantively the same as ISA

*Questions:*

- 18. Are there challenges in tailoring the scalability of the auditor's response to identified risks of material misstatement as described in the proposal? If so, what are they and how can they be addressed?
- 19. Should the proposed standard limit the auditor's selection of an approach and, if so, under what circumstances?

**C. Testing the Company's Process Used to Develop the Accounting Estimate**

*See proposed paragraph .09*

A company's process for developing an accounting estimate generally involves selecting and applying a particular method, using internal and external data and one or more assumptions. Similar to the existing fair value standard, the auditor's responsibility under the proposed standard would be to evaluate the methods (including, when



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-9

applicable, the model), data, and significant assumptions used to develop the estimate and determine whether the estimate is reasonable in the circumstances, in conformity with the applicable financial reporting framework, and free from bias that results in material misstatement.

Some commenters on the SCP identified the need for further emphasizing professional skepticism in this area and the audit implications of management bias. A number of those commenters also supported emphasizing the importance of the auditor's consideration of contrary or disconfirming information. The proposed standard emphasizes the importance of assessing the potential for management bias when performing procedures to test the company's process. This includes taking into account relevant audit evidence, including contradictory evidence that may exist, for example, when evaluating the reasonableness of significant assumptions, both individually and in combination, pursuant to the proposed requirements.

*1. Evaluating the Company's Methods*

*See proposed paragraphs .10 -.11*

The methods used by companies to develop accounting estimates typically depend on the measurement objective of the estimate. For example, for some estimates, including certain fair value measurements, the method may involve the use of a model or other valuation approach, such as one based on expected future cash flows. For other types of estimates, such as obsolescence reserves, the method used could be based on a calculation involving historical trends and other relevant data.

Similar to the existing fair value standard, the proposed standard would require the auditor to evaluate whether the methods used by the company are (1) in conformity with the applicable financial reporting framework,<sup>9</sup> and (2) appropriate for the nature of the related account or disclosure and the company's business, industry, and environment.<sup>10</sup> The proposed standard would also clarify that evaluating whether the methods are in conformity with the requirements of the applicable financial reporting framework includes evaluating whether the data and significant assumptions are

---

<sup>9</sup> See AS 2502.15.

<sup>10</sup> See AS 2502.18.





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-10

appropriately applied. The proposed standard would extend the requirements of the existing fair value standard in this area to the other types of accounting estimates in significant accounts and disclosures. As previously discussed, some firms' methodologies require their auditors to perform these procedures to evaluate the company's method when reviewing and testing its process for developing accounting estimates, including estimates other than fair value measurements.

Under the proposed standard, the necessary audit procedures to evaluate the method used by the company would be targeted to and commensurate with the assessed risks associated with the estimate. Risks associated with the company's methods may vary with the type of estimate and the company's process for determining the estimate. For example, the risks associated with a method that uses a commercially available valuation model may relate to whether the model is appropriate for the related estimate under the applicable financial reporting framework, whereas the risks associated with a method that uses an internally-developed company model may include additional risks associated with how the model was developed. In this example, the internally-developed model scenario would require greater audit effort to respond to the broader range of risks, as compared to the commercially available model scenario. In either case, the auditor would evaluate whether the method was used appropriately, including whether adjustments, if any, to the output of the model were appropriate.

The SCP discussed potential requirements related to evaluating the method used by the company to develop accounting estimates, including a potential requirement to evaluate whether the method is accepted within the company's industry. Commenters on this topic supported requiring the auditor to evaluate the appropriateness of a company's methods, but some were concerned that requiring the auditor to also evaluate whether the methods are accepted within the industry could pose challenges in practice. These commenters noted, for example, that what is accepted within an industry may not be objectively determinable or relevant for all accounting estimates, and would be based on facts and circumstances. Accordingly, the proposed standard would require a more general evaluation—whether the company's method is appropriate for the nature of the related account and the business, industry, and environment in which the company operates.

The proposed standard would also address circumstances in which a company has changed its method for developing an accounting estimate by requiring the auditor to determine the reasons for such change. Additionally, the proposed requirement would remind the auditor of the existing responsibility to evaluate the appropriateness of the change, including evaluating changes in methods that represent changes in



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-11

accounting principles, in accordance with AS 2820, *Evaluating Consistency of Financial Statements*. It is important for the auditor to understand the basis for the company's change to its method, as changes that are not based on new information or other changes in the company's circumstances could be indicative of management bias. Moreover, changes to the method could result in a change to the corresponding estimate and affect the consistency of the financial statements. By reinforcing the auditor's responsibilities to evaluate the appropriateness of changes in method for developing the accounting estimates, the procedures in the proposed standard are more closely aligned with existing requirements of AS 2820.

#### *Comparison with Standards of Other Standard Setters*

ISA 540 provides that the auditor shall determine whether the methods for making the accounting estimate are appropriate and have been applied consistently, and whether changes, if any, in accounting estimates or in the method for making them from the prior period are appropriate in the circumstances. Further, ISA 540 provides that as part of testing how management made the accounting estimate, and the data on which it is based, the auditor shall evaluate whether the method of measurement used is appropriate in the circumstance.

AU-C Section 540 contains requirements that are substantively the same as ISA 540.

#### *Question:*

20. Are the proposed requirements for evaluating the company's method used to develop accounting estimates clear? Are there other matters that are important to evaluating a method that should be included in the proposed requirements?

#### *2. Testing Data Used*

*See proposed paragraphs .12-.14*

Companies generally use either internal data or data from external sources to develop accounting estimates, depending on the nature of the estimate and the information available. Examples of external data include economic, market, or industry data. Examples of internal data include the company's historical warranty claims and historical losses on defaulted loans.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments  
Page A3-12

Under the proposed standard, the auditor would have a responsibility to evaluate the data used by the company and the manner in which the company used it. These requirements build on requirements in the existing fair value standard and in AS 1105.

To evaluate the data used by the company, the auditor would look to existing requirements in AS 1105. For external data, this includes evaluating the relevance and reliability of the data. For internal data, the auditor would look to the requirements in AS 1105 to test the accuracy and completeness of the information produced by the company or to test the controls over the accuracy and completeness of that information.<sup>11</sup> These requirements are similar to those in the existing fair value standard.<sup>12</sup>

The proposed standard would also require the auditor to evaluate whether the data was used appropriately by the company, based in part on procedures in the existing fair value standard.<sup>13</sup> Specifically, the auditor would evaluate whether (1) the data is relevant to the measurement objective for the accounting estimate; (2) the data is internally consistent with its use by the company in other estimates tested; and (3) the source of the company's data has changed from the prior year and, if so, whether the change is appropriate.

Evaluating whether data is relevant to the measurement objective includes, for example, considering whether more recent or more precise internal or external data is available to the company. For instance, use of industry default rates that are not representative of the specific geographic locations where the company operates may be less relevant than the company's historical default rates.

---

<sup>11</sup> See AS 1105.10.

<sup>12</sup> See AS 2502.39, which includes requirements for the auditor to evaluate whether the data on which the estimate is based is accurate, complete, and relevant, and provides that the auditor's tests may include reviewing information for internal consistency, including whether such information is consistent with management's intent and ability to carry out specific courses of action.

<sup>13</sup> *Id.*



PCAOB Release No. 2017-002  
June 1, 2017  
Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments  
Page A3-13

Consistent with similar procedures in the existing fair value standard,<sup>14</sup> an evaluation of the internal consistency of data with its use by the company in other estimates tested by the auditor might reveal potential contradictory evidence.

Evaluating whether the source of the company's data has changed from the prior year and if so, whether the change is appropriate is also important because a change in the source of the data could significantly affect the estimate. While a new source of data might result in an estimate that better reflects a company's specific circumstances, a change in data source could also be used by a company to achieve a desired financial result. Thus, devoting audit attention to changes in the data source could help the auditor identify potential management bias.

*Comparison with Standards of Other Standard Setters*

The corresponding ISA 540 requirements are discussed in Section II.C.1 of this appendix.

AU-C section 540 provides that in testing how management made the accounting estimate, and the data on which it is based, the auditor should evaluate whether the data on which the estimate is based is sufficiently reliable for the auditor's purposes.

*Questions:*

21. Are there any further requirements regarding testing internal data or evaluating the relevance and reliability of external data that the Board should consider?
22. Are the proposed requirements to evaluate whether data was appropriately used by the company clear? Are there other criteria the auditor should assess to make this evaluation? If so, what are they?

---

<sup>14</sup>

*Id.*



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-14

### 3. *Identification and Evaluation of Significant Assumptions*

*See proposed paragraph .15-. 18*

The existing estimates standards set forth requirements for identifying significant assumptions and evaluating those assumptions for reasonableness, both individually and in combination.<sup>15</sup> The proposed standard would build on the existing requirements and set forth criteria for the auditor to identify which of the assumptions used by the company are significant. Those criteria include factors that are intended to prompt auditors to consider assumptions that are susceptible to management bias.

The company's significant assumptions may be expressly identified by the company or implicit in the nature of the estimate or in the method used to develop the estimate. For example, the company's default risk is often implicit in the pricing assumptions used to determine the fair value of company debt.

The proposed standard would provide that significant assumptions are those that are "important to the recognition or measurement of the estimate in the financial statements." It also provides factors that are relevant to identifying significant assumptions, building on the factors specified in the existing estimates standards,<sup>16</sup> to assist the auditor in making this determination. One such factor includes whether the assumption is sensitive to variation, such that minor (i.e., relatively small) changes in the assumption can cause significant changes in the estimate. For example, a fraction of a percent increase in a discount rate used in a discounted cash flow model could have a significant effect on a calculated reserve. Another factor includes whether the assumption specifically relates to an identified and assessed risk of material misstatement. Assumptions that drive or are associated with identified risks of material misstatement would generally be considered significant assumptions. This factor was added to prompt auditors to design and perform testing of significant assumptions that is responsive to the identified and assessed risks of material misstatement, as discussed previously.

---

<sup>15</sup> See generally AS 2502.26-.36 and AS 2501.11.

<sup>16</sup> See generally AS 2502.33 and 2501.09.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-15

The SCP solicited views on whether the auditor should be required to identify the assumptions used by management that are significant to the accounting estimate. The SCP also listed some identifying characteristics of significant assumptions. Some commenters indicated that presenting factors for identifying significant assumptions (as described in the SCP) might be helpful to the auditor, and those commenters asked for further clarification regarding some of the factors in the SCP. Some commenters expressed concern, however, that a requirement to identify significant assumptions used by management might lead the auditor to identify too many assumptions as significant simply because they have one of the identifying characteristics. Some commenters opposed requiring the auditor to identify assumptions beyond those used by management, noting difficulty in practical application.

The proposed requirement links the identification of significant assumptions used by management to the auditor's risk assessment, allowing the auditor to better determine which assumptions are significant to the estimate, while focusing on areas that could result in a material misstatement. It does not require the auditor to identify assumptions beyond those used by management (including those implicit in a particular method or estimate). Rather, it provides a general description of what a significant assumption is along with factors to aid the auditor in identifying them.

The proposed standard would also retain the requirement in existing estimate standards for the auditor to evaluate significant assumptions used by management for reasonableness, both individually and in combination.<sup>17</sup> The proposed standard would provide that evaluating significant assumptions for reasonableness includes evaluating whether the company has a reasonable basis for those assumptions and, when applicable, the company's selection of assumptions from a range of potential assumptions. This provision recognizes that, in many cases, estimates are developed using a range of assumptions, and focuses audit attention on how the company selects its assumptions. The evaluation for reasonableness also includes evaluating consistency of the significant assumptions with, among other things, the company's historical data, the economic environment, and market information.

Under the proposed standard, the auditor would evaluate whether the company has a reasonable basis for the significant assumptions used and whether the significant assumptions are consistent with factors such as the company's objectives; historical

---

<sup>17</sup> See, e.g., AS 2502.28.





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-16

experience (e.g., prior years' assumptions and past practices), taking into account changes in conditions affecting the company; and other significant assumptions in other estimates tested (e.g., assumptions are consistent with each other and other information obtained).

In circumstances where the auditor evaluates the reasonableness of a significant assumption by developing an expectation of that assumption, the proposed standard would also require the auditor to have a reasonable basis for that expectation. In practice, auditors often develop their own expectation of a significant assumption as a means to evaluate the reasonableness of the company's assumption. The proposed standard would clarify the auditor's responsibility for supporting that expectation.

In addition, evaluating the reasonableness of significant assumptions under the proposed standard would require the auditor to take into account factors, to the extent applicable, that affect the company's intent and ability to carry out a particular course of action when such action is relevant to the significant assumption. By doing so, the proposed standard would extend a similar requirement in the existing fair value standard for determining whether a significant assumption that is based on the company's intent and ability to carry out a particular course of action is reasonable<sup>18</sup> to other accounting estimates in significant accounts and disclosures.

Evaluating the reasonableness of significant assumptions was discussed in the SCP, including potential factors or conditions that the auditor takes into account when making his or her evaluation. Specifically, the SCP included a potential requirement for the auditor to evaluate the consistency of each significant assumption with the following, if applicable (1) relevant industry, regulatory, and other external factors, including economic conditions; (2) the company's objectives, strategies, and related business risks; (3) existing market information; (4) historical or recent experience, taking into account changes in conditions and events affecting the company; and (5) other interdependent assumptions used by the company.

Some commenters on this topic agreed that the factors presented in the SCP could be helpful to auditors, while other commenters stated that the factors were too general. A few commenters expressed concern that the potential requirement could result in auditors focusing on factors that may not necessarily be important for each

---

<sup>18</sup>

See AS 2502.17 and .36.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-17

significant assumption. The factors presented in the proposed requirement are largely consistent with those included in the existing fair value standard. Further, the proposed requirement provides that the auditor should evaluate whether significant assumptions are consistent with the factors presented where those factors are applicable. This would help mitigate the risk that auditors would focus on factors that are not important to a significant assumption.

The proposed standard would also require additional audit attention to critical accounting estimates, which are accounting estimates where (1) the nature of the estimate is material due to the levels of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change, and (2) the impact of the estimate on financial condition or operating performance is material.<sup>19</sup> Specifically, for critical accounting estimates, the proposed standard would require the auditor to obtain an understanding of how management analyzed the sensitivity of its significant assumptions<sup>20</sup> to change, based on other reasonably likely outcomes that would have a material effect. The requirement in the proposed standard looks to the corresponding management responsibilities under the SEC's Financial Reporting Release No. 72, *Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations*. Notably, the auditor is not expected to evaluate the company's compliance with the SEC's requirements, but rather to use the auditor's understanding of management's analysis for critical accounting estimates in evaluating the reasonableness of the significant assumptions and potential for management bias in accordance with paragraph .27 of AS 2810, *Evaluating Audit Results*.

#### *Comparison with Standards of Other Standard Setters*

ISA 540 provides that as part of testing how management made the accounting estimate, and the data on which it is based, the auditor shall evaluate whether the

---

<sup>19</sup> See paragraph .A3 in Appendix A of AS 1301, *Communications with Audit Committees*.

<sup>20</sup> For the purposes of this requirement, significant assumptions identified by the company may not necessarily include all of those identified by the auditor as significant.





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-18

assumptions used by management are reasonable in light of the measurement objectives of the applicable financial reporting framework. Further, for accounting estimates that give rise to significant risks, ISA 540 requires the auditor to evaluate: (a) how management considered alternative assumptions or outcomes and why it rejected them, or how management has otherwise addressed estimation uncertainty in making accounting estimates; (b) whether the significant assumptions used by management are reasonable; and (c) where relevant to the reasonableness of the significant assumptions used by management or the appropriate application of the applicable financial reporting framework, management's intent to carry out specific courses of action and its ability to do so.

AU-C Section 540 contains requirements that are substantively the same as ISA 540.

The IAASB and ASB do not have requirements for the auditor to identify significant assumptions used by management.

*Question:*

23. Are the proposed requirements for the auditor to identify significant assumptions and to evaluate whether the company has a reasonable basis for significant assumptions used clear? Do those requirements pose any practical difficulties and, if so, how could the proposed standard be revised to address those difficulties?

4. *Company's Use of a Specialist or Third-Party Pricing Information*

*See proposed paragraphs .19-.20*

The proposed standard would require the auditor to take into account the work of a company's specialist used in developing an accounting estimate when determining the evidence needed in testing the company's process. As noted earlier, in a companion release, the Board is proposing to amend its standards regarding the auditor's use of the work of specialists, including specialists employed or engaged by the company ("company's specialist").<sup>21</sup> The proposed amendments in the specialist

---

<sup>21</sup> See Specialists Release, PCAOB Release No. 2017-003.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-19

proposal are intended to, among other things, align the requirements for using the work of a company's specialist more closely with the risk assessment standards and this proposed standard on auditing accounting estimates, including fair value measurements.

Notably, the proposed standard references the proposed amendments to AS 1105 in the specialist proposal that would require the auditor to look to the corresponding requirements in proposed Appendix B to AS 1105 for testing and evaluating the work of a company's specialist when that work is used to support a conclusion regarding a relevant assertion, such as a relevant assertion related to an accounting estimate. With respect to the procedures to be performed in testing and evaluating the data, assumptions, and methods used by the specialist, proposed Appendix B to AS 1105 in the specialist proposal would require the auditor to, among other things, assess the knowledge, skill, and ability of the company's specialist and the specialist's relationship to the company.<sup>22</sup>

The proposed standard also recognizes that the company's use of pricing information from third-party pricing sources affects the necessary procedures for testing and evaluating the company's process. Therefore, when third-party pricing information used by the company is significant to the valuation of financial instruments, the proposed standard would require the auditor to evaluate whether the company has used that information appropriately and whether it provides sufficient appropriate audit evidence.

#### **D. Developing an Independent Expectation of the Estimate**

*See proposed paragraph .21*

The proposed standard would allow the auditor to develop an independent expectation of an estimate, consistent with the existing estimates standards.<sup>23</sup> The proposed standard, however, would more clearly set forth the auditor's responsibilities, which depend on the sources of the methods, data, and assumptions used by the auditor. Those sources include (1) independent assumptions and methods of the

---

<sup>22</sup>

*Id.*

<sup>23</sup>

See AS 2501.12, AS 2502.40, and AS 2503.40.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments  
Page A3-20

auditor, (2) data and assumptions obtained from a third party, and (3) the company's data, assumptions, or methods.

Under the existing fair value standard, when developing an independent estimate of fair value, the auditor may use management's assumptions, but is required to evaluate those assumptions for reasonableness, consistent with the procedures performed when testing management's process.<sup>24</sup> Alternatively, instead of using the company's assumptions, the auditor may use his or her own assumptions to develop an independent estimate. In that situation, the auditor is still required to understand the company's significant assumptions so that his or her independent estimate takes into consideration all significant variables and to evaluate any significant difference from management's estimate.<sup>25</sup> The auditor also is required to test company data used to develop the independent estimate.<sup>26</sup>

Similarly, under the existing accounting estimates standard, an auditor can independently develop an expectation using other key factors or alternative assumptions about those factors based on the auditor's understanding of the facts and circumstances.<sup>27</sup>

The proposed standard would retain the general approach in the existing estimates standards for developing an independent expectation, but the requirements are more explicitly tailored to the different sources of the methods, data, and assumptions used by the auditor, as set forth in the table below and discussed further in the sections that follow.

---

<sup>24</sup> See generally AS 2502.28-.39.

<sup>25</sup> See AS 2502.40.

<sup>26</sup> *Id.*

<sup>27</sup> See AS 2501.12.



<b>Auditor's Independent Expectation Developed Using:</b>	<b>Auditor Responsibility Under the Proposed Standard</b>
Assumptions and methods of the auditor	Have a reasonable basis for the assumptions and methods
Data and assumptions obtained from a third party	Evaluate the relevance and reliability of the data and assumptions
Company data, assumptions or methods	Test and evaluate in the same manner as when testing the company's process

This approach provides more appropriate direction to auditors in light of the various ways in which auditors determine an independent expectation of accounting estimates.

Additionally, while retaining the requirement under the existing fair value standard for an auditor to understand management's assumptions to ensure that his or her independent estimate takes into consideration all significant variables,<sup>28</sup> the proposed standard would also expressly require the auditor to take into account the requirements of the applicable financial reporting framework. The proposed standard includes this new requirement because, by taking into account the requirements of the applicable financial reporting framework, the auditor might identify additional considerations relevant to the estimate that the company did not take into account in its own process for developing estimates.

Notably, the proposed standard would refrain from using certain terms used in the existing estimates standards, such as requiring auditors to "corroborate" information, which might lead to confirmation bias or anchoring bias when auditing accounting estimates. Instead, the proposed standard uses more neutral terms, such as "evaluate" and "compare." For example, the proposed standard would require the auditor to compare the auditor's independent expectation to the company's accounting estimate instead of developing an independent fair value estimate "for corroborative purposes."<sup>29</sup>

---

<sup>28</sup> See AS 2502.40.

<sup>29</sup> *Id.*



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-22

The SCP discussed retaining the requirements from the existing estimates standards for developing an independent estimate, but indicated that a new standard could present separate requirements that depend on the source of the data and assumptions to provide greater clarity regarding the procedures to be performed for developing an independent estimate. Commenters on this topic supported providing differential direction depending on the source of data and assumptions but expressed concern about potential requirements to test the accuracy and completeness of data and assumptions from external sources. As discussed more fully below, the proposed standard would require the auditor to evaluate the relevance and reliability of data and assumptions obtained from third parties in accordance with AS 1105, but does not require the auditor to test the accuracy and completeness of this information.

#### *Comparison with Standards of Other Standard Setters*

When the auditor develops a point estimate or a range to evaluate management's point estimate, ISA 540 provides that: (i) If the auditor uses assumptions or methods that differ from management's, the auditor shall obtain an understanding of management's assumptions or methods sufficient to establish that the auditor's point estimate or range takes into account relevant variables and to evaluate any significant differences from management's point estimate; and (ii) If the auditor concludes that it is appropriate to use a range, the auditor shall narrow the range, based on audit evidence available, until all outcomes within the range are considered reasonable.

AU-C Section 540 contains requirements that are substantively the same as ISA 540.

#### *Question:*

24. Are the proposed requirements described above for developing an independent expectation clear? Are there other matters relevant to the proposed requirements that the Board should consider?

1. *Independent Assumptions and Methods of the Auditor*

*See proposed paragraph .22*

The proposed standard recognizes that, when developing an independent expectation of an estimate, the auditor can independently derive assumptions or use a different method than the company. In either situation, the auditor should have a reasonable basis for the assumptions and methods used. Such a reasonable basis



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments  
Page A3-23

would reflect consideration of the nature of the estimate; relevant requirements of the applicable financial reporting framework; the auditor's understanding of the company, its environment, and the company's process for developing the estimate; and other relevant audit evidence, regardless of whether the evidence corroborates or contradicts management's assumptions.

The proposed standard takes into account observations from the PCAOB's oversight activities where auditors, in developing an independent expectation, used assumptions for which they had no reasonable basis or that were not appropriate under the circumstances.

*Questions:*

25. Is the proposed requirement that the auditor have a reasonable basis for the assumptions and method used when the auditor independently derives assumptions, or uses his or her own method in developing an independent expectation, clear? Are there other matters relevant to the proposed requirement that the Board should consider?
26. Are there instances today when auditors generate or accumulate data directly and use that data to develop an independent estimate, rather than obtain data from a third party or the company under audit? If so, please describe those instances and how the proposed requirements should address them.

2. *Data and Assumptions Obtained from a Third Party*

*See proposed paragraph .23*

In developing an independent expectation of an accounting estimate, auditors often obtain data or assumptions from a third party. The existing estimates standards do not establish specific requirements for the auditor with respect to information obtained from third parties. The proposed standard would direct the auditor to the existing requirements in AS 1105 under those circumstances to evaluate the relevance and reliability of such data or assumptions. This is consistent with the requirements for evaluating data from external sources discussed in Section II.C.2 of this appendix.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-24

The proposed standard would also direct the auditor to comply with the requirements of proposed AS 1210, *Using the Work of an Auditor-Engaged Specialist* when the third party is a specialist engaged by the auditor.<sup>30</sup> The proposed standard does not set forth specific requirements related to methods obtained from a third party that is not a specialist, as the Board understands that auditors typically use either the company's methods or their own methods in developing an independent expectation.

Appendix A of the proposed standard would apply when the auditor develops an independent expectation of the fair value of financial instruments using pricing information from a third party. These requirements are discussed further in Section II.G.4 of this appendix.

*Question:*

27. Are there instances when auditors obtain methods from third parties in developing an independent expectation of an accounting estimate? If so, please describe those instances and whether and how the proposed requirements should address them.

3. *Use of Company Data, Assumptions, or Methods*

*See proposed paragraph .24*

The proposed standard would retain the existing requirements for the auditor to test data from the company and evaluate the company's significant assumptions for reasonableness, when used by the auditor to develop an independent estimate.<sup>31</sup> The proposed standard would also require the auditor to evaluate the company's method, if the auditor uses that method to develop an independent expectation. Under the proposed standard, the auditor would test the data, significant assumptions, or method using the corresponding procedures that apply when the auditor tests the company's process to establish a reasonable basis for using company information in an independent expectation. The proposed standard recognizes that auditors may use a portion or a combination of data, assumptions, and method provided by the company in

---

<sup>30</sup> See paragraph .08 of the proposed standard.

<sup>31</sup> See AS 2502.40.





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-25

developing their expectations. If the company's data, assumptions, or methods are those of a company's specialist, the auditor would also be required to comply with the requirements in proposed Appendix B to AS 1105 when using the work of a company specialist as audit evidence.<sup>32</sup>

### *Comparison with Standards of Other Standard Setters*

ISA 540 provides that if the auditor uses assumptions or methods that differ from management's, the auditor shall obtain an understanding of management's assumptions or methods sufficient to establish that the auditor's point estimate or range takes into account relevant variables and to evaluate any significant differences from management's point estimate.

AU-C Section 540 contains requirements that are substantively the same as ISA 540.

### *Question:*

28. Are the proposed requirements for developing an independent expectation when using the company's data, assumptions, or methods clear?

4. *Developing an Independent Expectation as a Range*

*See proposed paragraph .25*

The existing estimates standards provide for the development of an independent point estimate as one approach for testing accounting estimates, but do not discuss developing an independent expectation as a range of estimates. AS 2810 provides for developing a range of possible estimates for purposes of the auditor's evaluation of misstatements relating to accounting estimates.<sup>33</sup>

The SCP discussed whether a potential new standard could include a specific requirement when an auditor develops an independent estimate as a range of

---

<sup>32</sup> See Specialists Release, PCAOB Release No. 2017-003.

<sup>33</sup> See AS 2810.13.





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-26

estimates. The potential requirement put forth in the SCP emphasized that the estimate is limited to outcomes within the range that are supported by sufficient appropriate audit evidence. Some commenters expressed concern that the requirement, as described in the SCP, may imply precision within a range of estimates that may not be feasible or attainable or could be interpreted to mean that the range should be limited to materiality. Several commenters were supportive of requiring (or including as an option) a sensitivity analysis, while others stated that auditors might be limited in their ability to perform such an analysis and recommended continuing to allow for auditor judgment in this area.

The proposed standard would require that, if the auditor's independent expectation consists of a range rather than a point estimate, the auditor should determine that the range is appropriate for identifying a misstatement of the company's accounting estimate and is supported by sufficient appropriate audit evidence. For example, the range developed by the auditor would include only reasonable outcomes supported by sufficient appropriate audit evidence. This is consistent with the principles in AS 2810,<sup>34</sup> and acknowledges that, although outcomes of certain accounting estimates could vary widely (even beyond the auditor's established level of materiality), a range that includes unsupported outcomes would not provide a suitable basis for identifying a misstatement.

#### *Comparison with Standards of Other Standard Setters*

ISA 540 provides that if, in the auditor's judgment, management has not adequately addressed the effects of estimation uncertainty on the accounting estimates that give rise to significant risks, the auditor shall, if considered necessary, develop a range with which to evaluate the reasonableness of the accounting estimate.

AU-C Section 540 contains requirements that are substantively the same as ISA 540.

---

<sup>34</sup> AS 2810.13 states, among other things, that if a range of reasonable estimates is supported by sufficient appropriate audit evidence and the recorded estimate is outside of the range of reasonable estimates, the auditor should treat the difference between the recorded accounting estimate and the closest reasonable estimate as a misstatement.



PCAOB Release No. 2017-002  
 June 1, 2017  
 Appendix 3 - Additional Discussion of Proposed  
 Standard and Proposed Amendments  
 Page A3-27

*Question:*

29. Is the proposed requirement for an auditor's range clear? Are there other matters relevant to the auditor developing a range that the Board should consider?
5. *Comparing the Auditor's Independent Expectation to the Company's Accounting Estimate*

*See proposed paragraph .26*

Consistent with existing estimates standards, the proposed standard would require the auditor to compare the auditor's independent expectation to the company's estimate and evaluate the differences in accordance with AS 2810.13.<sup>35</sup>

**E. Evaluating Audit Evidence from Events or Transactions Occurring After the Measurement Date**

*See proposed paragraphs .27-.29*

The existing estimates standards recognize that events and transactions occurring after the balance-sheet date can provide relevant audit evidence regarding accounting estimates and, therefore, allow the auditor to test accounting estimates by reviewing subsequent events and transactions.<sup>36</sup> However, these standards caution that changes in circumstances occurring after the balance-sheet date may limit the audit evidence provided by subsequent events if the events or transactions reflect those changes.<sup>37</sup>

---

<sup>35</sup> See Section II.F of this appendix for additional discussion on evaluating audit results.

<sup>36</sup> See generally AS 2502.41 and AS 2501.13, which provide that events and transactions occurring after the balance-sheet date but before the date of the auditor's report may provide audit evidence regarding accounting estimates as of the balance-sheet date.

<sup>37</sup> See generally AS 2502.42.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-28

The SCP discussed the use of subsequent events as audit evidence. Commenters to the SCP on this topic were supportive of retaining the approach including certain refinements as discussed in the SCP.

The proposed standard would provide that events and transactions that occur after the measurement date can provide relevant evidence to the extent they reflect conditions at the measurement date. For example, the sale of a bond shortly after the balance-sheet date (which in this case is also the measurement date) may provide relevant evidence regarding the company's fair value measurement of the bond as of the balance sheet date if the intervening market conditions remain the same. As another example, when a business combination occurred during the year, events occurring subsequent to the measurement date, such as the cash settlement of short-term receivables, may provide relevant evidence about the accounting estimate as of the measurement date if they reflect conditions at the measurement date. In those situations, the audit procedures would be focused on evaluating the relevance and reliability of the evidence provided by the subsequent event, including the extent to which the subsequent event reflects conditions existing at the measurement date.

The proposed standard would retain the existing approach and more clearly align the procedures with the auditor's existing responsibilities under AS 1105 to evaluate the relevance and reliability of audit evidence. Specifically, consistent with AS 1105, the proposed standard would require the auditor to evaluate whether the audit evidence from events or transactions occurring after the measurement date is sufficient, reliable, and relevant to the company's accounting estimate and whether the evidence supports or contradicts the company's estimate.

Additionally, the proposed standard would direct the auditor to take into account changes in the company's circumstances and other relevant conditions between the event or transaction date and the measurement date. It also notes that as the length of time from the measurement date increases, the likelihood that events and conditions have changed during the intervening period also increases.

#### *Comparison with Standards of Other Standard Setters*

The corresponding ISA 540 requirements are discussed in Section II.B.1 of this appendix.

AU-C Section 540 contains requirements that are substantively the same as ISA 540.



PCAOB Release No. 2017-002  
June 1, 2017  
Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments  
Page A3-29

*Question:*

30. Are there additional factors that the auditor should take into account when evaluating the relevance of the audit evidence obtained from events or transactions occurring after the measurement date?

**F. Evaluating Audit Results**

*See proposed paragraphs.30-.31*

The proposed standard would incorporate existing requirements for evaluating the results of audit procedures performed on accounting estimates. Paragraphs .30-.31 of the proposed standard reiterate the existing requirement of AS 2810 as a reminder for the auditor to evaluate the results of such audit procedures, including whether, based on sufficient appropriate audit evidence, the accounting estimates and related disclosures are reasonable and in conformity with the applicable financial reporting framework.<sup>38</sup> This includes evaluating potential bias in accounting estimates.

*Comparison with Standards of Other Standard Setters*

ISA 540 provides that the auditor shall evaluate, based on the audit evidence, whether the accounting estimates in the financial statements are either reasonable in the context of the applicable financial reporting framework, or are misstated. Further, ISA 540 requires the auditor to review the judgments and decisions made by management in the making of accounting estimates to identify whether there are indicators of possible management bias.

AU-C Section 540 contains requirements that are substantively the same as ISA 540.

---

<sup>38</sup> See generally AS 2810.10-.27 and .31.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-30

## **G. Appendix A – Special Topics**

### *1. Introduction*

As previously discussed, the proposal builds on the existing fair value standard and sets forth more uniform requirements in a single standard applicable to both accounting estimates and fair value measurements. Additionally, the proposal also recognizes certain aspects unique to determining the fair value of financial instruments that were more broadly discussed in the SCP. Some commenters pointed to these considerations as reasons to maintain a separate auditing standard for fair value measurements. For example, financial instruments are valued using standardized approaches and methodologies that are generally well understood in the financial reporting frameworks. These approaches and methodologies also primarily use market-based inputs and assumptions such as interest rates or credit spreads, rather than the company-specific inputs more common to other accounting estimates. Further, valuation techniques used for fair value measurements and other accounting estimates also differ.

Taking these distinctions into account, Appendix A of the proposed standard would require the auditor to perform specific procedures when auditing the fair value of financial instruments. These procedures address the unique risks of material misstatement associated with estimating the fair value of certain financial instruments, including how values are determined, and provide direction to the auditor in responding to those risks. For example, the proposed standard recognizes the importance of information from third-party pricing services and brokers or dealers as sources of fair value measurements for financial instruments. Commenters responding to this topic in the SCP generally agreed that the use of third-party pricing sources is important and should be addressed in the new standard.

Given the pervasiveness of pricing information provided by third parties, Appendix A focuses on the various ways this information can be used by both the company and the auditor. The proposed standard also incorporates and builds on topics discussed in the existing derivatives standard, including certain procedures for auditing the valuation of derivatives and securities measured at fair value.<sup>39</sup>

---

<sup>39</sup>

See generally AS 2503.35-.44.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-31

The proposal is also informed by other outreach. For example, meetings of the Pricing Sources Task Force ("Task Force")<sup>40</sup> discussed, among other things, the various methodologies used by third-party pricing sources to value financial instruments and the challenges that this can pose in practice to auditors. Additionally, the proposed standard has been informed by publications of other standard setters<sup>41</sup> that are used in practice.

*Question:*

31. Are there other matters relevant to financial instruments that should be considered or included in Appendix A of the proposed standard?
2. *Identifying and Assessing Risks of Material Misstatement Related to the Fair Value of Financial Instruments*

*See proposed paragraph .A1*

The proposed standard would require the auditor to obtain an understanding of the nature of the financial instruments being valued to identify and assess the risks of material misstatement related to their fair value. It also recognizes that different types of financial instruments are subject to different risks of material misstatement. For example, the risk of material misstatement of the valuation of debt securities issued by a company with good credit standing may differ from the risk of material misstatement associated with an asset-backed security collateralized by cash flows of lower quality loans. The proposed requirement is consistent with certain requirements in AS 2110 for identifying and assessing risks of material misstatement and incorporates many of the considerations in the existing derivatives standard related to risks inherent in derivatives and investment securities.<sup>42</sup> The approach in the proposed standard generally reflects practice in that auditors normally take the nature of the financial instrument into account

---

<sup>40</sup> Meetings with the Task Force were held in May, June, and September of 2011.

<sup>41</sup> See IAASB International Auditing Practice Note 1000, *Special Considerations in Auditing Financial Instruments* (Dec. 16, 2011).

<sup>42</sup> See generally AS 2503.08.





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-32

when identifying and assessing the related risks of material misstatement. Additionally, obtaining an understanding of the nature of financial instruments allows the auditor to better group the instruments based on identified and assessed risks. Understanding the nature of the financial instruments being valued also helps the auditor assess whether their fair values were determined in conformity with the applicable financial reporting framework.

The proposed standard also recognizes that fair values of financial instruments based on trades of the same instruments in an active market generally have a lower risk of material misstatement than the fair values of instruments based on similar instruments or unobservable inputs. As such, the necessary audit response would also differ. This is consistent with the views of some commenters on the SCP, who stated that financial instruments with lower inherent risk should not be subject to the same procedures as those with higher risk.

*Question:*

32. Are there other matters that the auditor should take into account when obtaining an understanding of the nature of the financial instruments being valued? If so, what are they?

3. *Use of Pricing Information from Third Parties as Audit Evidence*

*See proposed paragraphs .A2-.A3*

As discussed above, pricing information from third-party sources, such as pricing services and brokers or dealers, is frequently used by both companies and auditors in determining or auditing fair value measurements of financial instruments. Pricing services routinely provide uniform pricing information to their users, generally on a subscription basis. This pricing information may be generated at various points in time and is available to all subscribers including both companies and audit firms. In some cases, a pricing service may be engaged by a company or auditor to individually develop a price for a specific financial instrument not routinely priced for its subscribers (for example, because of an issuer's default, a delisting, or a major change in liquidity of the related asset class). Under those circumstances, the pricing service may be providing services more akin to a specialist; therefore, the requirements in proposed



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-33

Appendix B to AS 1105 or proposed AS 1210 would apply, depending on whether the pricing service is engaged by the company or the auditor.<sup>43</sup>

In addition, as is currently the case under AS 2503,<sup>44</sup> a pricing service would continue to be a service organization if it meets the criteria of AS 2601, *Consideration of an Entity's Use of a Service Organization*.<sup>45</sup> In those instances, the auditor would look to the requirements of AS 2601 regarding his or her responsibilities for understanding and evaluating controls of the pricing service and apply the requirements of the proposed standard when performing substantive testing.

Most commenters on this topic, which was discussed in the SCP, suggested that differentiating between pricing services and specialists was appropriate, and some supported an approach that would distinguish them based on the nature of services provided to the auditor. Some of these commenters suggested additional considerations, such as whether company-specific information was used or relied upon by the third party in developing an estimate. A few commenters suggested that there is no need for a new standard to differentiate between a third-party pricing source and a specialist, as both use data, assumptions, and methods (which could include models) in their estimation processes. As discussed above, the proposed standard provides direction to distinguish between a pricing service and a specialist.

Under the proposed standard, the auditor would have a responsibility to perform procedures (as described in .A4-.A9) to determine whether the pricing information obtained from a third party provides sufficient appropriate audit evidence to respond to the risks of material misstatement, consistent with existing requirements in AS 1105.<sup>46</sup> This approach emphasizes that the auditor's response and the extent of evidence obtained should be commensurate with the assessed risk. The SCP discussed evaluating the relevance and reliability of information obtained from a third-party pricing

---

<sup>43</sup> See Specialists Release, PCAOB Release No. 2017-003.

<sup>44</sup> See AS 2503.12.

<sup>45</sup> See AS 2601.03.

<sup>46</sup> See *generally* paragraphs AS 1105.04-.08.





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-34

source, including related factors that the auditor could take into account. The relevant comments are included in the sections below.

The proposed standard would also provide that the procedures in Appendix A apply to pricing information obtained from pricing sources used by management in their estimation process as well as from those obtained by the auditor for the purpose of developing an independent expectation.<sup>47</sup> This approach focuses on assessing the relevance and reliability of the pricing information obtained, rather than of the third party itself, and is better aligned with the auditor's assessment of risk.

Evaluating audit evidence from third-party sources, including pricing services and broker or dealers, was discussed in the SCP. Commenters on this topic favored a risk-based approach to procedures performed to evaluate pricing information from third parties. With respect to the third parties used, a few commenters indicated that the auditor should be required to use a third-party pricing source different from management's source in all cases. Other commenters, however, indicated that third-party pricing services generally provide independent pricing information that lacks management bias and is free from influence from any one issuer. Those commenters argued that the auditor should not be required to use a third-party source different from management's source, or that a different pricing source should be required only in exceptional circumstances. The proposed standard would allow the auditor to evaluate information from a pricing source used by the company, in which case the auditor would apply the procedures in paragraphs .A4-.A7 of the proposed standard for evaluating the relevance and reliability of that information.

Additionally, some commenters suggested that a new standard should continue to allow the auditor to stratify financial instruments into groups with similar characteristics and risks, for purposes of performing audit procedures. Like the existing estimates standards, the proposed standard does not require audit procedures to be applied to each individual financial instrument. Several commenters on the SCP noted

---

<sup>47</sup> An auditor's ability to use pricing information obtained from pricing sources used by the company may be limited by other requirements, such as interpretive releases issued by the SEC. See, e.g., SEC, *Codification of Financial Reporting Policies Section 404.03, Accounting, Valuation and Disclosure of Investment Securities*, Accounting Series Release No. 118 (Dec. 23, 1970), which provides requirements for audits of SEC-registered investment companies.



PCAOB Release No. 2017-002

June 1, 2017

# Appendix 3 - Additional Discussion of Proposed Standard and Proposed Amendments

Page A3-35

that a third-party pricing source might limit the extent of information provided to an auditor. If, as a result of limitations imposed by a third-party pricing source, the auditor is unable to perform the procedures required in Appendix A, the auditor would be required to perform alternative audit procedures (for example, engaging a specialist to assist the auditor in developing an independent expectation) to obtain sufficient appropriate evidence.

## Question:

33. Are there other sources of pricing information for financial instruments that should be addressed in the proposed standard?

## 4. Using Information from Pricing Services

See proposed paragraphs .A4-.A7

The proposed standard would provide the following factors that affect the reliability of pricing information provided by a pricing service. These factors build on existing requirements for evaluating the reliability of audit evidence under AS 1105.<sup>48</sup>

- *The experience and expertise of the pricing service relative to the types of financial instruments being valued, including whether the financial instruments being valued are routinely priced by the pricing service.* Pricing information that is routinely provided by a pricing service that has experience and expertise relative to the type of instrument being valued is generally more reliable than a price developed by a pricing service that has limited access to market information relative to an asset class or financial sector.
- *Whether the methodology used by the pricing service in determining fair value of the financial instrument being tested is in conformity with the applicable financial reporting framework.* Pricing services use different methodologies to determine fair value. The proposed standard would recognize that, in order to evaluate the reliability of audit evidence provided by the pricing service, the methodology used by the pricing

---

<sup>48</sup>

See AS 1105.08.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-36

service should be in conformity with the applicable financial reporting framework.

- *Whether the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service.* In general, pricing information provided by a pricing service has less potential to be biased because the information is broadly available to the public through subscription. The reliability of such pricing information as evidence, however, decreases if the company being audited has the ability to directly or indirectly control, or significantly influence, the pricing service.

The proposed standard would also provide direction on evaluating the relevance of pricing information provided by a pricing service, building on the requirements related to the relevance of audit evidence under AS 1105.<sup>49</sup> Under the proposed standard, the procedures to be performed generally depend on whether there is available information about trades in the same or similar securities.

*Fair values based on quoted prices in active markets for identical financial instruments.* The relevance of pricing information depends on the extent to which the information reflects market data. Recent trades of the identical financial instrument generally provide relevant audit evidence.

*Fair values based on transactions of similar financial instruments.* Only a fraction of the population of financial instruments is traded actively. For many financial instruments, the available audit evidence consists of market data for trades of similar financial instruments or trades of the identical instruments in an inactive market. How a pricing service identifies and considers transactions comparable to the financial instrument being valued affects the relevance of the pricing information provided as audit evidence. The proposed standard would require the auditor to perform additional audit procedures to evaluate the process used by the pricing service, when the fair values are based on transactions of similar instruments. The procedures performed by the auditor will vary in nature depending on the process used by the pricing service (for example, whether the pricing service uses matrix pricing or an algorithm). Thus, the proposed standard does not specify the nature of the audit procedures to be performed

---

 49

See AS 1105.07.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-37

in these circumstances. Procedures may include for example, evaluating how comparable transactions are selected and monitored or how matrix pricing is developed.

*No recent transactions have occurred for the same or similar financial instruments.* When no recent transactions have occurred for either the financial instrument being valued or similar financial instruments, pricing services may develop prices using broker quotes or models. How a pricing service develops prices for these financial instruments, including whether the inputs used represent the assumptions that market participants would use when pricing the financial instruments, affects the relevance of the pricing information provided as audit evidence.

When pricing information from a pricing service indicates no recent trades for the financial instrument being valued or similar instruments, the proposed standard would require the auditor to perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of the observable and unobservable inputs used by the pricing service. The nature of the procedures to evaluate the valuation methods and inputs would vary based on the type of inputs and valuation methods involved. For example, evaluating the reasonableness of a fair value based on the estimated cash flows from a pool of securitized mortgage loans would differ from evaluating an input derived from adjusted observable data. Similarly, evaluating the reasonableness of a complex algorithm would differ from evaluating a conventional discounted cash flow calculation.

When an auditor is unable to obtain information from a pricing service about the method or inputs used to develop the fair value of a financial instrument when no recent transactions have occurred for either the financial instrument being valued or for similar financial instruments, the auditor would be required to perform additional procedures, such as obtaining and evaluating pricing information from a different pricing source, obtaining evidence about the inputs used from public data about similar trades, or developing an independent expectation with the assistance of an auditor's specialist.

Some commenters on this topic agreed that a new standard should provide factors to assist the auditor in evaluating evidence obtained from third-party pricing sources, and some suggested additional factors, such as the extent of documented controls. Other commenters, however, stated that a new standard should emphasize assessing the competence and objectivity of the third party rather than evaluating the relevance and reliability of the evidence obtained. Still other commenters indicated that a new standard should acknowledge that limitations may exist on the extent of information third-party pricing sources can disseminate widely to issuers and auditors.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-38

Some commenters suggested that information from third-party pricing sources is developed free of the influence from any single company and should be considered sufficient appropriate audit evidence under AS 1105.

The proposed standard is also aligned with the existing requirements in AS 1105. By taking into account the unique characteristics of information obtained from pricing services, the proposed requirements provide more direction for evaluating audit evidence and emphasize that the extent of evidence obtained should be commensurate with the assessed risk of material misstatement.

The procedures set forth in the proposed standard reflect certain practices for using pricing services observed at the largest audit firms. As discussed earlier, the largest firms typically use a centralized group within the firm to assist in performing procedures related to testing the fair value of financial instruments, and the proposed standard would continue to allow such assistance.<sup>50</sup>

*Questions:*

34. Are the requirements for using information from a pricing service clear? Are there other requirements that should be considered? For example, are there other methods used by pricing services to generate pricing information that are not currently addressed in the proposed standard?
35. Do the requirements included in the proposed standard pose operational challenges for audit firms that use centralized groups? If so, what are they and how could they be addressed in the proposed standard?

---

<sup>50</sup> Centralized groups within the firm that assist audit teams with evaluating the specific methods and assumptions related to a particular instrument, identifying and assessing risks of material misstatement, or evaluating differences between a company's price and a pricing services' price generally would be subject to the supervision requirements of AS 1201.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-39

5. *Pricing Information from Multiple Pricing Services*

*See proposed paragraph .A8*

The existing derivatives standard acknowledges that an auditor might obtain estimates from more than one pricing service when auditing valuation assertions, but does not specify how the auditor evaluates those estimates.<sup>51</sup> The centralized pricing groups at the largest audit firms generally obtain pricing information from multiple pricing services. One commenter on the SCP suggested that if multiple third parties provide values within a narrow range, further auditor consideration should be unnecessary.

The proposed standard would set forth certain conditions under which less information is needed about the particular methods and inputs used by the individual pricing services. In general, these factors relate to situations in which there is reasonably consistent pricing information available from several sources with ample observable inputs. For example, pricing information developed using the same market data in active markets may vary only slightly depending on the pricing services' methodologies. When the conditions included in the proposed standard exist, less information would be needed about the particular methods and inputs used by an individual pricing service for the particular financial instrument or instruments, and the pricing information obtained generally would be more relevant and reliable. Conversely, when the conditions included in the proposed standard do not exist, the auditor would be required to perform additional audit procedures, including evaluating the appropriateness of the valuation method, and the reasonableness of observable and unobservable inputs for a representative price. A representative price would not necessarily be the closest price to the price used by the company, but rather one that, based on available information about the pricing services and instrument, would likely reflect the market price for the instrument.

*Question:*

36. Is the auditor's responsibility when evaluating relevance and reliability of pricing information from multiple pricing services clear?

---

<sup>51</sup>

*See generally AS 2503.38.*





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-40

6. *Using Pricing Information from a Broker or Dealer*

*See proposed paragraph .A9*

Broker quotes are sometimes used by companies as a basis for the fair value measurement of a financial instrument. The existing derivatives standard<sup>52</sup> discusses using broker quotes to obtain estimates of fair value measurements. The proposed standard would retain the basic approach in the existing derivatives standard, with refinements to align more closely the other procedures in this standard for using information from a third party. The proposed standard includes factors that address the relevance and reliability of a broker quote, similar to those discussed in the SCP. For example, broker quotes generally provide more relevant and reliable evidence when they are timely, binding quotes, without restrictions, limitations or disclaimers, from unaffiliated market makers transacting in the same type of financial instrument. The proposed standard includes an additional factor not included in the SCP relating to whether the quote reflects market conditions as of the financial statement date, because that factor affects the relevance of the evidence provided. Information about whether the quote reflects market conditions as of the financial statement date could be obtained from the broker or dealer or from other sources.

If the broker quote does not provide sufficient appropriate audit evidence, the auditor would be required to perform procedures to obtain relevant and reliable pricing information from another source (for example, obtaining a quote from a different broker or obtaining pricing information from a pricing service).

Since a broker quote might include a disclaimer, the proposal addresses that the nature of the restriction, limitation, or disclaimer affects the relevance and reliability of the evidence provided by a broker quote. For example, a broker quote that states "the value provided by this quote is not an indication of fair value" generally would not provide sufficient appropriate audit evidence. On the other hand, a disclaimer that indicates that the broker or dealer is not providing a recommendation to buy or sell a security may not affect the relevance or reliability of that quote as audit evidence.

In addition, the proposal includes an amendment to AS 1105.08 to more broadly address restrictions, limitations, and disclaimers in audit evidence from third parties.

---

<sup>52</sup> See generally AS 2503.36-.39.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-41

*Question:*

37. Are there other characteristics affecting the relevance and reliability of evidence provided by a broker quote that the proposed standard should include?

7. *Unobservable Inputs*

*See proposed paragraph .A10*

Unobservable inputs are generally used to determine fair value when relevant observable inputs, such as market data, are not available. Financial instruments valued based on unobservable inputs generally have a higher risk of material misstatement than those based on observable market inputs. The manner in which unobservable inputs are used in a valuation of a financial instrument is largely governed by the applicable financial reporting frameworks.

The proposed standard would require the auditor to obtain an understanding of how unobservable inputs were determined and to evaluate the reasonableness of those inputs. This would involve, among other things, taking into account the assumptions that market participants would use when pricing the financial instrument, including assumptions about risk, and how management determined its fair value measurement, including whether it appropriately considered available information.

By providing factors that the auditor takes into account, the proposed standard provides additional direction in an area that is inherently subjective and judgmental in nature and therefore poses a higher risk of material misstatement.

*Question:*

38. Are there additional factors that the auditor should take into account when evaluating the reasonableness of unobservable inputs?

*Comparison with Standards of Other Standard Setters*

The IAASB and ASB do not have explicit requirements for using information from third-party pricing sources.





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-42

### **III. Proposed Amendments to PCAOB Standards**

The Board is proposing the amendments contained in Appendix 2 to several of its existing auditing standards to conform to the proposed standard. Significant amendments are described below.

#### **Proposed Amendments to AS 1015, *Due Professional Care in the Performance of Work***

The proposed amendments to AS 1015.11 make two technical changes with respect to the discussion of reasonable assurance when auditing accounting estimates. The first change clarifies that many (although not all) accounting presentations contain accounting estimates, the measurement of which is inherently uncertain and depends on the outcome of future events. The second change would clarify that, in auditing accounting estimates, the auditor considers information through the date of the auditor's report, which under existing standards is a date no earlier than the date on which the auditor has obtained sufficient appropriate audit evidence.<sup>53</sup>

These changes are intended to be clarifications and are not expected to significantly change audit practice.

#### **Proposed Amendments to AS 1105, *Audit Evidence***

The proposed amendments to AS 1105.08 would require the auditor to evaluate the effect of any restrictions, limitations, or disclaimers on the reliability of evidence, when a third party provides evidence to an auditor subject to disclaimers or restrictive language. Third-party information often contains disclaimers as to the use of such information and its conformity with the applicable financial reporting framework. As such, it is important that auditing standards require the auditor's evaluation of such matters.

The proposed amendment to AS 1105.08 recognizes that restrictions, limitations, or disclaimers affect the relevance and reliability of evidence obtained from third parties and sets forth requirements to address these circumstances.

---

<sup>53</sup>

See paragraph .01 of AS 3110, *Dating of the Independent Auditor's Report*.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-43

The proposed amendments also would add Appendix A, Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results, to AS 1105. The proposed amendments are intended to better align the required procedures to evaluate evidence obtained regarding valuation of investments based on the investee's financial condition or operating results with the risk assessment standards.

In general, the proposed amendments would retain and update certain requirements from AS 2503 for situations in which the valuation of an investment selected for testing is based on the investee's financial condition or operating results, including certain investments accounted for by the equity method<sup>54</sup> and investments accounted for by the cost method for which there is a risk of material misstatement regarding impairment. The proposed amendments would also apply to investments measured at fair value for which the investee's financial condition or operating results are a significant input into the fair value determination (for example, when the fair value of an investment is based on revenue or earnings multiple derived from the financial statements of a company). The extent of audit procedures to be performed depends, among other things, on the assessed risk of material misstatement of the investment to the investor's financial statements, the extent to which the investee's financial condition or operating results affect the valuation of the company's investment, and whether the investee has audited financial statements that provide sufficient appropriate audit evidence. When audited financial statements are significant to the valuation of the investment, the amendments would require the auditor to obtain and evaluate information about the professional reputation and standing of the investee auditor and to obtain information about the investee auditor.<sup>55</sup> The Board understands that, in practice,

---

<sup>54</sup> This does not apply to investments accounted for under the equity method if (1) the investor's equity in the underlying net assets and its share of the earnings or losses of the investee are recorded based on investee financial statements that are audited by an auditor other than the principal auditor and (2) the other auditor is supervised under AS 1201 or the work and report of the other auditor are used under AS 1205. In those situations, the auditor should look to the requirements of AS 1201 or AS 1205, as applicable.

<sup>55</sup> The proposed amendments set forth an alternative to evaluating the investee auditor (paragraph .A4) in audits of certain investment companies that invest in other funds. The investment companies covered by this alternative are subject to SEC



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments  
Page A3-44

auditors may receive summary information from investee auditors about the work performed and results. The proposed amendments are consistent with the current practice of obtaining such summarized information, but additional procedures such as review of audit documentation may be necessary in some cases, for example, if the auditor has concerns about the professional reputation and standing of the investee auditor, information obtained from the investee auditor raises doubt about the valuation of the investment, or the investee auditor's work does not include one or more procedures necessary to support a conclusion about the valuation.<sup>56</sup>

*Questions:*

39. Are the proposed requirements for evaluating audit evidence regarding the valuation of investments based on investee financial condition or operating results clear?
40. Does the proposed alternative approach for audits of certain investment companies represent a significant change in practice for those audits? If so, how? Is that alternative approach applied in other circumstances? If so, what are those circumstances?

---

Accounting Series Release No. 118, which provides that an auditor of the investment company would need to review all information considered by the company in the valuation of securities carried at fair value. The alternative approach in the proposed amendments recognizes that, in these situations, unless the auditor has doubt about the reputation and standing of the investee's auditor, sufficient appropriate audit evidence about the underlying investments in investee funds can be obtained through testing the investment company's procedures rather than obtaining information about the audit of the investee or reviewing audit documentation.

<sup>56</sup> The auditor might identify that necessary work was not performed, for example, if the audit was performed under local jurisdiction auditing standards that did not mandate certain procedures necessary to obtain sufficient appropriate evidence under PCAOB standards.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-45

**Proposed Amendments to AS 2110, *Identifying and Assessing Risks of Material Misstatement***

The proposal includes a number of amendments to AS 2110 as described in more detail below. These proposed amendments primarily relate to:

- Obtaining an understanding of the processes used to develop accounting estimates and evaluating the use of service organizations that are part of a company's information system;
- Discussing how the financial statements could be manipulated through management bias; and
- Assessing additional risk factors specifically for accounts and disclosures involving accounting estimates.

**A. Information and Communication**

The existing estimates standards contain various requirements for obtaining an understanding of the company's processes for determining accounting estimates. Because such procedures are inherently part of obtaining an understanding of a company's internal control over financial reporting, the proposed amendments would include the procedures in the corresponding section of the risk assessment procedures in AS 2110.

The proposed amendment to AS 2110.28 would require that, as part of obtaining an understanding of a company's information system and related business processes, the auditor should determine whether related accounts involve accounting estimates. If so, the proposed amendment would require the auditor to obtain an understanding of the processes used to develop accounting estimates, including:

- The methods used, which may include models;
- The data and assumptions, including the source from which they are derived; and
- The extent to which the company uses specialists or other third parties, including the nature of the service provided and the extent to which the third parties use company data and assumptions.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-46

The proposed amendment further aligns the requirements of the proposed standard with the Board's risk assessment standards by emphasizing elements of assessing the risks of material misstatement that are specifically relevant to accounting estimates. The methods, data and assumptions used by the company in its process to develop accounting estimates, including how they are selected and applied, drive the risk associated with the estimate. The auditor's understanding is linked to understanding the information system relevant to financial reporting; therefore, the necessary effort to obtain such understanding would be governed by the general requirements in AS 2110 for obtaining a sufficient understanding of the company's internal control over financial reporting.<sup>57</sup> By explicitly requiring the auditor to obtain an understanding of these components of the process, the proposed amendment would promote a more robust risk assessment in this area while not representing a major change in practice. The proposed amendment to paragraph .28 of AS 2110 also includes a note which highlights that the requirements in AS 2601 with respect to the auditor's responsibilities for obtaining an understanding of controls at the service organization would apply when the company uses a service organization that is part of the company's information system over financial reporting. The proposed amendment would remind the auditor to consider whether the requirements of AS 2601 are applicable to the third party used by the company in developing an accounting estimate.

In addition, for critical accounting estimates, the proposed amendment includes a note that would require the auditor to obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect, and would require the

---

<sup>57</sup> See AS 2110.18, which provides that the auditor should obtain a sufficient understanding of each component of internal control over financial reporting to: (a) identify the types of potential misstatements, (b) assess the factors that affect the risks of material misstatement, and (c) design further audit procedures. See also AS 2110.19, which further provides that the nature, timing, and extent of procedures that are necessary to obtain an understanding of internal control depend on the size and complexity of the company; the auditor's existing knowledge of the company's internal control over financial reporting; the nature of the company's controls, including the company's use of IT; the nature and extent of changes in systems and operations; and the nature of the company's documentation of its internal control over financial reporting (footnote omitted).



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments  
Page A3-47

auditor to take that understanding into account when evaluating the reasonableness of significant assumptions and potential management bias.<sup>58</sup>

The SCP discussed a potential amendment that would require the auditor, as part of understanding internal control over financial reporting, to understand the company's (1) methods (including models); (2) data and assumptions; and (3) the extent to which a company uses a third party or information provided by a third party in developing the accounting estimate. Some commenters suggested the staff clarify the extent of understanding required by the auditor, particularly as it relates to situations where the company uses a third party or information provided by a third party in developing accounting estimates. Certain of these commenters expressed concern that the potential amendment, as presented in the SCP, could imply that the auditor is required to evaluate the third party's internal controls. Another commenter noted that a distinction should be made between understanding the extent to which the company uses a third party compared to the extent to which the company uses information provided by a third party in developing accounting estimates.

The proposed amendment to AS 2110 is largely consistent with the presentation in the SCP but has been revised to a more general requirement about the extent to which specialists or other third parties are used. This more general formulation clarifies that the auditor is not required to obtain an understanding about each use of each specialist individually. Rather, pursuant to the requirements of AS 2110.18, the auditor's understanding should be sufficient to "(a) identify the types of potential misstatements, (b) assess the factors that affect the risks of material misstatement, and (c) design further audit procedures."

#### *Comparison with Standards of Other Standard Setters*

ISA 540 shares some commonality with certain provisions of AS 2110 and the proposed amendment to AS 2110.28. Specifically, ISA 540 provides that, when performing risk assessment procedures and related activities to obtain an understanding of the entity and its environment, including the entity's internal control, as required by ISA 315, the auditor shall obtain an understanding of the following in order

---

<sup>58</sup> See Section II.C.3 of this appendix for an additional discussion of this requirement.





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-48

to provide a basis for the identification and assessment of the risks of material misstatement for accounting estimates:

- a. The requirements of the applicable financial reporting framework relevant to accounting estimates, including related disclosures.
- b. How management identifies those transactions, events and conditions that may give rise to the need for accounting estimates to be recognized or disclosed in the financial statements. In obtaining this understanding, the auditor shall make inquiries of management about changes in circumstances that may give rise to new, or the need to revise existing, accounting estimates.
- c. How management makes the accounting estimates, and an understanding of the data on which they are based, including:
  - i. The method, including where applicable the model, used in making the accounting estimate;
  - ii. Relevant controls;
  - iii. Whether management has used an expert;
  - iv. The assumptions underlying the accounting estimates;
  - v. Whether there has been or ought to have been a change from the prior period in the methods for making the accounting estimates, and if so, why; and
  - vi. Whether and, if so, how management has assessed the effect of estimation uncertainty.

540. AU-C Section 540 contains requirements that are substantively the same as ISA

*Question:*

41. Are there other matters relevant to understanding the process used to develop accounting estimates that could be included in the risk assessment standard?



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-49

**B. Discussion of the Potential for Material Misstatement Due to Fraud**

AS 2110.52 requires the key engagement team members to discuss the potential for material misstatement due to fraud. Specifically, this discussion entails consideration of how and where the auditor believes the company's financial statements might be susceptible to material misstatement due to fraud, how management could perpetrate and conceal fraudulent financial reporting, and how assets of the company could be misappropriated.

The proposed amendment to AS 2110.52 would also require the auditor to consider, as part of this discussion, how the financial statements could be manipulated through management bias. Given their subjective nature, accounting estimates are inherently susceptible to management bias. The proposed requirement would focus the auditor's attention on a risk that is particularly relevant to accounting estimates and further underscores the importance of applying professional skepticism in this area.

*Question:*

42. Is it appropriate to include how financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures, as part of the discussion among key engagement team members of the potential for material misstatement due to fraud? If not, describe why it is not appropriate.

**C. Identifying Significant Accounts and Disclosures and Their Relevant Assertions**

AS 2110.60 requires that, as part of the auditor's identification of significant accounts and disclosures and their relevant assertions, the auditor should evaluate the qualitative and quantitative risk factors related to the financial statement line items and disclosures. It also includes risk factors relevant to the identification of significant accounts and disclosures and their relevant assertions.

The proposed amendment to AS 2110.60 provides the auditor with additional risks factors to consider specific to accounting estimates. The factors include:

- a. The degree of uncertainty associated with the future occurrence or outcome of events and conditions underlying the assumptions;
- b. The complexity of the process for developing the accounting estimate;





PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments  
Page A3-50

- c. The number and complexity of significant assumptions associated with the process;
- d. The degree of subjectivity associated with significant assumptions (for example, because of significant changes in the related events and conditions or a lack of available observable inputs); and
- e. If forecasts are important to the estimate, the length of the forecast period and degree of uncertainty regarding trends affecting the forecast.

The additional risk factors included in the proposed amendment describe those characteristics and conditions that are associated with accounting estimates and that can affect the auditor's determination of the likely sources of potential misstatement. Linking these factors to the existing requirements for identifying significant accounts and disclosures and their relevant assertions helps the auditor to determine which estimates are within the scope of the proposed standard and to design an appropriate audit response.

The SCP discussed whether AS 2110 should be amended to include additional factors for the auditor to take into account related to evaluating the degree of complexity or judgment in the recognition or measurement of financial information, for purposes of determining which risks are significant risks.<sup>59</sup> Some commenters indicated the factors should be provided as guidance and not as matters that the auditor should take into account, given that these factors may only apply to certain fair value measurements and not necessarily to the broader population of accounting estimates. Other commenters suggested general guidance around the area of measurement uncertainty and the related effect on the auditor's risk assessment.

After consideration of the comments received and other outreach, the proposed amendments to AS 2110 do not include additional factors to evaluate when determining significant risks. The existing requirement in AS 2110.71f already applies to accounting estimates that involve a wide range of measurement uncertainty. Instead, the proposed amendment to AS 2110.60 expands the list of risk factors to include specific factors for

---

<sup>59</sup> AS 2110.71 requires the auditor to evaluate certain factors in determining which risks are significant risks.



accounting estimates to prompt auditors to appropriately assess the associated risks in the related accounts and disclosures and develop appropriate audit responses.

*Comparison with Standards of Other Standard Setters*

ISA 540 provides that in identifying and assessing the risks of material misstatement, as required by ISA 315, the auditor shall evaluate the degree of estimation uncertainty associated with an accounting estimate.

AU-C Section 540 contains requirements that are substantively the same as ISA 540.

Question:

43. Are the additional risk factors to identify significant accounts and disclosures involving accounting estimates clear?

**Proposed Amendment to AS 2301, *The Auditor's Responses to the Risks of Material Misstatement***

The proposed amendment to AS 2301.36 includes a note emphasizing that performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework. The note is consistent with existing requirements in AS 2820, which require the auditor to evaluate whether the financial statements are presented fairly in conformity with the applicable financial reporting framework.

As discussed in the SCP, the proposed amendment serves as a reminder for the auditor and underscores the importance of considering the disclosure requirements in the applicable financial reporting framework relevant to accounting estimates. Two commenters did not support including additional language in AS 2301.36, as discussed in the SCP. One suggested that it would be redundant of other requirements. The other suggested the amendment might have the unintended consequence of leading the auditor to assess the minimum requirements of the applicable financial reporting framework. Others that commented suggested the amendment would be helpful. The note has been included in this proposal to emphasize the importance of evaluating whether the accounting for a significant account or disclosure is in conformity with the applicable financial reporting framework.



PCAOB Release No. 2017-002

June 1, 2017

Appendix 3 - Additional Discussion of Proposed  
Standard and Proposed Amendments

Page A3-52

**Proposed Amendment to AS 2401, *Consideration of Fraud in a Financial Statement Audit***

The proposed amendment to AS 2401.64 clarifies that, when an auditor performs a retrospective review of significant accounting estimates reflected in the financial statements, the review should be performed for accounting estimates in significant accounts and disclosures. The scope of the retrospective review is consistent with the scope of the proposed standard.

In addition, the amendment requires a comparison of the prior year's estimates to actual results, if any, to determine whether management's judgments and assumptions relating to the estimates indicate a possible bias on the part of management. Comparison of the prior year's estimates to the actual results, when available, further clarifies that the scope of the review applies to those situations where actual results exist. In addition to clarifying the auditor's responsibilities for considering possible bias on the part of management, the proposed amendment recognizes that the results of a retrospective review may provide information regarding the effectiveness of the company's estimation process.

**Proposed Amendment to AS 2805, *Management Representations***

The proposed amendment to AS 2805.06 would require the auditor to obtain specific representations related to accounting estimates in connection with an audit of financial statements presented in conformity with generally accepted accounting principles. Consistent with the existing fair value standard, the auditor would obtain representations about the appropriateness of the methods, the consistency in application, the accuracy and completeness of data, and the reasonableness of significant assumptions used by the company in developing accounting estimates.

**Proposed Amendment to Rescind AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501***

The Board is proposing to rescind AI 16. That interpretation addresses performance and reporting guidance related to fair value disclosures, primarily voluntary disclosures including fair value balance sheets. Fair value disclosure requirements in the accounting standards have changed since the issuance of this interpretation, and fair value balance sheets covered by the interpretation are rarely included in issuer financial statements. Accordingly, this interpretation is unnecessary.



1666 K Street, N.W.  
Washington, D.C. 20006  
Telephone: (202) 207-9100  
Facsimile: (202) 862-8430  
[www.pcaobus.org](http://www.pcaobus.org)

---

## STAFF CONSULTATION PAPER

### ***AUDITING ACCOUNTING ESTIMATES AND FAIR VALUE MEASUREMENTS***

**AUGUST 19, 2014**

---

This paper was developed by staff of the Office of the Chief Auditor (the "staff") of the Public Company Accounting Oversight Board (the "Board" or "PCAOB"). It is not a statement of the Board, nor does it necessarily reflect the views of the Board or its members.

This paper discusses and solicits comment on certain issues related to auditing accounting estimates and fair value measurements. It describes the staff's preliminary views concerning the potential need for change and presents potential revisions to PCAOB standards in response to that potential need for change. This paper requests comment on these issues and on a possible approach to changing existing standards, as well as possible alternatives.

The staff welcomes comment on the matters discussed in this paper. Written comments should be sent to the Office of the Secretary, PCAOB, 1666 K Street, N.W., Washington DC 20006-2803. Comments also may be submitted by email to [comments@pcaobus.org](mailto:comments@pcaobus.org) or through the PCAOB's website at: [www.pcaobus.org](http://www.pcaobus.org). All comments should refer to the Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*, on the subject or reference line and should be submitted no later than November 3, 2014.

Questions about this paper should be directed to Martin F. Baumann, Chief Auditor (202/207-9192, [baumannm@pcaobus.org](mailto:baumannm@pcaobus.org)); Greg Scates, Deputy Chief Auditor (202/207-9114, [scatesg@pcaobus.org](mailto:scatesg@pcaobus.org)); Barbara Vanich, Associate Chief Auditor (202/207-9363, [vanichb@pcaobus.org](mailto:vanichb@pcaobus.org)); Nike Adesoye, Assistant Chief Auditor (202/591-4177, [adesoyen@pcaobus.org](mailto:adesoyen@pcaobus.org)); or Dominika Taraszkiewicz, Assistant Chief Auditor (202/591-4143, [taraszkiewicz@pcaobus.org](mailto:taraszkiewicz@pcaobus.org)).

## **Contents**

Introduction .....	3
The Potential Need for Standard Setting.....	6
A. Background .....	6
B. The Potential Need for Improvement.....	9
C. Current Requirements and Certain Audit Practices .....	12
1. Current Requirements.....	12
2. Certain Aspects of Current Practice.....	14
Staff Consideration of Alternative Approaches .....	15
A. Alternative Approaches .....	15
B. Overview of the Approach Being Considered by the Staff.....	17
Key Aspects of a Potential New Standard and Related Potential Requirements .....	19
A. Alignment with the Risk Assessment Standards.....	21
1. Identifying and Assessing Risks of Material Misstatement.....	22
2. Responding to the Risks of Material Misstatement .....	26
B. Substantive Procedures for Testing Accounting Estimates .....	29
1. Testing the Company's Process .....	30
2. Developing an Independent Accounting Estimate .....	38
3. Evaluating Audit Evidence from Subsequent Events .....	41
C. Use of Third Parties.....	43
1. Evaluating Audit Evidence from Third-Party Sources .....	44
Questions Related to Economic Impacts and Implications .....	47



## Introduction

The staff of the PCAOB's Office of the Chief Auditor is evaluating whether existing PCAOB standards relating to auditing accounting estimates and fair value measurements can and should be improved. This paper seeks additional information to help the staff assess the potential need for changes to the PCAOB standards in this important area and develop a possible approach for the Board's consideration.

As discussed in this paper, auditing accounting estimates and fair value measurements<sup>1</sup> has proven challenging to auditors. Over the last decade, there have been changes in the financial reporting frameworks relating to accounting estimates and an increasing use of fair value as a measurement attribute, together with new related disclosure requirements.<sup>2</sup> Through its oversight activities, the PCAOB has observed significant audit deficiencies in this area.<sup>3</sup> Deficiencies have been noted in audits performed not only under the standards of the PCAOB, but also under the standards of other standard setters around the world. For example, the past two surveys by the International Forum of Independent Audit Regulators ("IFIAR") found the highest number of deficiencies in audits of public companies to be in the area of fair value measurements.<sup>4</sup>

---

<sup>1</sup> This paper uses the terms "accounting estimate" and "fair value measurement" to have the same meaning as those terms have in AU sec. 342, *Auditing Accounting Estimates* ("AU sec. 342") and AU sec. 328, *Auditing Fair Value Measurements and Disclosures* ("AU sec. 328") and does not intend to convey that fair value measurements generally are not accounting estimates. The discussion of a potential new standard, including examples of possible requirements, generally uses the term "accounting estimate" to mean both accounting estimates and fair value measurements.

<sup>2</sup> The Financial Accounting Standards Board ("FASB") has issued standards relating to accounting estimates and fair value measurements. See footnote 16 for additional detail.

<sup>3</sup> See, e.g., *Report on Observations of PCAOB Inspectors Related to Audit Risk Areas Affected by the Economic Crisis*, PCAOB Release No. 2010-006 (September 29, 2010). See also *Report on 2007-2010 Inspections of Domestic Firms that Audit 100 or Fewer Public Companies*, PCAOB Release No. 2013-001 (Feb. 25, 2013).

<sup>4</sup> See generally *Report on 2013 Survey of Inspection Findings*, IFIAR (April 10, 2014), [https://www.ifiar.org/IFIAR/media/Documents/IFIARMembersArea/MemberUpdates/IFIAR-Inspection-Survey-9-April-2014\\_1.pdf](https://www.ifiar.org/IFIAR/media/Documents/IFIARMembersArea/MemberUpdates/IFIAR-Inspection-Survey-9-April-2014_1.pdf); and *2012 Summary Report of Audit Inspection Findings*, IFIAR (December 18, 2012),



The staff has had a project on its agenda for a number of years to consider replacement or amendment of the Board's existing standards on auditing accounting estimates and fair value measurements.<sup>5</sup> During that time, the staff has issued guidance, performed research, and conducted outreach to inform the project, particularly with respect to the use of third parties in determining fair value measurements. This work has included, among other things:

- Six Staff Audit Practice Alerts issued by the PCAOB between 2007 and 2012 that addressed, to varying degrees, auditing accounting estimates and fair value measurements;<sup>6</sup>
- Meetings with the Board's Standing Advisory Group (the "SAG") on auditing fair value measurements, including in 2007 and 2009;<sup>7</sup>
- Meetings with the Pricing Sources Task Force (the "Task Force")<sup>8</sup> in May, June, and September of 2011 that included discussions on fair value related topics, such as the use of third-party pricing sources and how financial instruments are valued in an illiquid market;
- The ongoing review of inspection findings related to audit deficiencies of both large and small firms concerning accounting estimates and fair value measurements, together with actions the firms have taken to address audit deficiencies; and

---

[https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR-2012-Summary-Report-of-Members-Inspection-Findings-18-Dec-12-\(2\).pdf](https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR-2012-Summary-Report-of-Members-Inspection-Findings-18-Dec-12-(2).pdf).

<sup>5</sup> See Office of the Chief Auditor, *Standard-Setting Agenda*, PCAOB (June 30, 2014), [http://pcaobus.org/Standards/Documents/201406\\_standard\\_setting\\_agenda.pdf](http://pcaobus.org/Standards/Documents/201406_standard_setting_agenda.pdf).

<sup>6</sup> See footnote 18 for a description of these Staff Audit Practice Alerts.

<sup>7</sup> See *Standing Advisory Group Meeting*, PCAOB (June 21, 2007), [http://pcaobus.org/News/Events/Pages/06212007\\_SAGMeeting.aspx](http://pcaobus.org/News/Events/Pages/06212007_SAGMeeting.aspx); and *Standing Advisory Group Meeting*, PCAOB (October 14–15, 2009), [http://pcaobus.org/News/Events/Pages/10142009\\_SAGMeeting.aspx](http://pcaobus.org/News/Events/Pages/10142009_SAGMeeting.aspx), respectively.

<sup>8</sup> The Task Force of the SAG was formed to assist the staff in gaining insight into issues related to auditing the fair value of financial instruments.

- Continuing coordination and discussion with PCAOB inspection personnel on related matters involving audit firm practices, such as: audit practices related to the use of third-party sources, including pricing services; the use of centralized pricing desks or groups by firms; and how audit firms currently apply specific substantive audit procedures to accounting estimates and fair value measurements.

As part of its work on this project, the staff has been exploring a possible recommendation to the Board for revisions to the Board's existing standards concerning the auditing of accounting estimates and fair value measurements. While the staff continues to analyze a number of alternatives, it is considering developing a single standard (the "potential new standard") for the Board to consider proposing. As envisioned by the staff, the potential new standard could replace AU sec. 342 and AU sec. 328, and replace certain or all of the requirements in AU sec. 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* ("AU sec. 332") (AU sec. 342, AU sec. 328, and AU sec. 332 are collectively referred to as the "existing standards"). As discussed further in this paper, the potential new standard could be designed to: (i) align with the Board's risk assessment standards;<sup>9</sup> (ii) generally retain the approaches to substantive testing from AU sec. 328 and AU sec. 342, but include requirements that apply to both accounting estimates and fair value measurements; (iii) establish more specific audit requirements relating to the use of third parties in developing accounting estimates and fair value measurements; and (iv) create a more comprehensive standard related to auditing accounting estimates and fair value measurements to promote greater consistency and effectiveness in application.

Before recommending to the Board a specific standard-setting proposal, the staff is conducting additional outreach by issuing this consultation paper to obtain information and views, beyond what it has learned from the Board's oversight activities. Specifically, the staff is seeking information on: (i) the potential need for changes to the Board's existing auditing standards to better address changes in the financial reporting frameworks related to accounting estimates and fair value measurements and (ii) current audit practices that have evolved to address issues relating to auditing accounting estimates and fair value measurements. For example, the staff is interested in obtaining information about current audit practices related to, among other things, the

---

<sup>9</sup> The Board's "risk assessment standards," Auditing Standards No. 8 through No. 15, set forth requirements relating to the auditor's assessment of, and response to, the risks of material misstatement in the financial statements. See *Auditing Standards Related to the Auditor's Assessment of and Response to Risk and Related Amendments to PCAOB Standards*, PCAOB Release No. 2010-004 (August 5, 2010).





use of centralized pricing desks or groups by accounting firms, and the use of third parties. The staff also is seeking commenters' views on a possible approach to changing existing standards, and the requirements of a potential new standard. Additionally, the staff is seeking relevant economic data about potential economic impacts of standard setting in this area, including data to inform the PCAOB's economic analysis associated with standard setting in this area.

The staff welcomes input on these matters and any other matters that commenters believe are relevant. While this paper focuses on a preliminary approach to a potential new standard and the audit requirements that might be included in this approach, the staff is also interested in commenters' views on alternative approaches that warrant consideration. This paper also includes general and specific questions and requests for pertinent information and data that will help the staff in developing improvements to the PCAOB's auditing standards in this area.

## **The Potential Need for Standard Setting**

### **A. Background**

In general, accounting estimates are typically derived from an initial measurement, re-measurement, or recognition of a transaction or event in the financial statements. Accounting estimates may be based on subjective or objective information (or both) and involve some level of measurement uncertainty. While some accounting estimates may be easily determinable, others are inherently subjective or complex. Fair value, as a measurement, is defined by the financial reporting frameworks. Under U.S. generally accepted accounting principles ("GAAP"), a fair value measurement represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.<sup>10</sup> Like other accounting estimates, fair value measurements may be based on subjective or objective information and generally involve measurement uncertainty. Accounting estimates and fair value measurements involving a high degree of subjectivity and judgment may be more susceptible to misstatement and generally require more auditor focus.

Financial statements and disclosures of most companies include accounting estimates. Examples of accounting estimates include allowances for doubtful accounts, impairments of long-lived assets, valuations of financial and non-financial assets, and estimates of revenues from contracts with customers.

---

<sup>10</sup> FASB Accounting Standards Codification ("ASC"), Topic 820, Fair Value Measurement, paragraph 10-35-2.

Currently, a number of auditing standards, issued at different points in time, address how the auditor considers accounting estimates, fair value measurements, derivatives, and investments in securities ("securities"). For example, the risk assessment standards, adopted by the Board in 2010, set forth general requirements for the auditor's assessment of and response to risk in an audit.<sup>11</sup> The risk assessment standards address audit procedures performed throughout the audit, from the initial planning stages through the evaluation of the audit results.

Also, the existing standards establish requirements that relate specifically to auditing accounting estimates, fair value measurements, derivatives, and securities. The Board adopted the existing standards in 2003 on an interim basis along with other standards of the American Institute of Certified Public Accountants ("AICPA") in existence at the time.<sup>12</sup>

Briefly, the existing standards cover the following areas:

- AU sec. 328 (originally issued in January 2003) – contains guidance and requirements related to auditing the measurement and disclosure of assets, liabilities, and specific components of equity presented or disclosed at fair value in financial statements.<sup>13</sup>
- AU sec. 332 (originally issued in September 2000) – contains guidance and requirements related to planning and performing audit procedures for assertions about derivative instruments, hedging activities, and investments in securities. Its scope includes, among other things, requirements for auditing the valuation of derivative instruments and securities, including those measured at fair value.<sup>14</sup>

---

<sup>11</sup> See PCAOB Release No. 2010-004.

<sup>12</sup> On April 16, 2003, the PCAOB adopted on an interim, transitional basis, the generally accepted auditing standards, described in the AICPA's Auditing Standards Board's ("ASB") Statement on Auditing Standards No. 95, *Generally Accepted Auditing Standards*, then in existence. Since that time, the Board has superseded or amended many of those auditing standards and has been engaged in updating and reconsidering the remaining standards and, more recently, aligning them with the risk assessment standards.

<sup>13</sup> See *generally* AU sec. 328.01.

<sup>14</sup> See *generally* AU secs. 332.01–.04.

- AU sec. 342 (originally issued in April 1988) – contains guidance and requirements related to auditing accounting estimates.<sup>15</sup>

Since the issuance of the existing standards, the financial reporting frameworks have continued to evolve. Over the last decade, there have been changes in the financial reporting frameworks related to accounting estimates and an increasing use of fair value as a measurement attribute, along with new disclosure requirements.<sup>16</sup> FASB's adoption of a definition of fair value for financial reporting purposes provided clarification on how fair value should be measured; for example, market participant assumptions must now be considered.<sup>17</sup>

Financial instruments also continue to evolve. The complex nature of some financial instruments creates challenges in determining their value, which can be based primarily on unobservable inputs (that is, inputs not corroborated by market data). As a result, many companies and auditors use third parties, including pricing services, to obtain information relevant to determining and auditing fair value or estimates of fair value for financial instruments, which may or may not be developed using unobservable inputs.

In addition, a number of other accounting estimates in a company's financial statements may be developed by management using information provided by third parties. For example, companies often use a valuation specialist to inform

---

<sup>15</sup> See generally AU sec. 342.01.

<sup>16</sup> See, e.g., *Statement of Financial Accounting Standards ("SFAS") No. 159: The Fair Value Option for Financial Assets and Financial Liabilities*, FASB (February 2007), <http://www.fasb.org/pdf/fas159.pdf>. See also paragraph B41 of *SFAS No. 141 (Revised 2007): Business Combinations*, FASB (December 2007), <http://www.fasb.org/pdf/fas141r.pdf>, at 62 (listing in the basis for conclusions as a reason to eliminate the pooling method: "Both Boards observed that the pooling method is an exception to the general concept that exchange transactions are accounted for in terms of the fair values of the items exchanged."). See also *Accounting Standards Update 2014-09, Revenue from Contracts with Customers (Topic 606)*, FASB (May 2014), <https://asc.fasb.org/imageRoot/00/51801400.pdf>.

<sup>17</sup> See FASB ASC subparagraph 820-10-05-1C ("Because fair value is a market-based measurement, it is measured using the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk. As a result, a reporting entity's intention to hold an asset or to settle or otherwise fulfill a liability is not relevant when measuring fair value").

management's estimation of the value of assets acquired and liabilities assumed in a business combination or to assess whether intangible assets are impaired.

The complexity and risks of material misstatement associated with certain accounting estimates and fair value measurements, as well as the changes in the overall economic environment affecting estimates since the adoption of the existing standards, have led the staff to prepare several Staff Audit Practice Alerts to highlight considerations relevant to auditing accounting estimates and fair value measurements.<sup>18</sup>

## **B. The Potential Need for Improvement**

The potential need for improvement to the Board's standards in the area of accounting estimates and fair value measurements is illustrated by a number of factors that are summarized briefly below. These include: (i) audit deficiencies noted by the PCAOB and by other audit regulators; (ii) the changes in the financial reporting frameworks relating to accounting estimates, including fair value measurements; (iii) changes in the methods used to develop accounting estimates and fair value measurements, including the growing reliance on the work of third parties; and (iv) concern expressed by some auditors over perceived inconsistencies in the existing standards.

As previously noted, revisions to the financial reporting frameworks affect the use of management judgments and estimates in significant accounts. Recently, for example, in May 2014, the FASB and the International Accounting Standards Board issued new requirements for recognizing revenue from contracts with customers. The recognition of revenue under the new accounting standard requires, among other things the determination of a transaction price, which may include variable consideration; the allocation of the transaction price to the performance obligations in the contract; and

---

<sup>18</sup> Staff Audit Practice Alerts relevant to auditing accounting estimates and fair value measurements include: (1) *Matters Related to Auditing Fair Value Measurements of Financial Instruments and the Use of Specialists*, Staff Audit Practice Alert No. 2, (December 10, 2007); (2) *Audit Considerations in the Current Economic Environment*, Staff Audit Practice Alert No. 3 (December 5, 2008); (3) *Auditor Considerations Regarding Fair Value Measurements, Disclosures, and Other-Than-Temporary Impairments*, Staff Audit Practice Alert No. 4 (April 21, 2009); (4) *Auditor Considerations of Litigation and Other Contingencies Arising from Mortgage and Other Loan Activities*, Staff Audit Practice Alert No. 7 (December 20, 2010); (5) *Assessing and Responding to Risk in the Current Economic Environment*, Staff Audit Practice Alert No. 9 (December 6, 2011); and (6) *Maintaining and Applying Professional Skepticism in Audits*, Staff Audit Practice Alert No. 10 (December 4, 2012).

determination of when performance obligations are satisfied. These procedures may involve adjusting the transaction price for the time value of money, estimating the amount of variable consideration to which the company will be entitled, and estimating the relative standalone selling price.<sup>19</sup> Given that revenue is one of the most important measures used by investors, and that improper revenue recognition represents a presumed fraud risk,<sup>20</sup> the staff expects that revenue recognition and the related accounting estimates will continue to warrant significant audit attention.

The complexity inherent in auditing certain accounting estimates and fair value measurements also has been raised at various meetings of the SAG.<sup>21</sup> In these meetings, many SAG members recognized the complexities related to accounting estimates and fair value measurements, and were generally supportive of the Board's standard-setting efforts in these areas. Discussions with the SAG led to the formation of the Task Force, which included auditors, issuers, investors, regulators, and representatives from several pricing sources. The Task Force held several meetings in 2011 and focused primarily on the use of third-party pricing sources to determine fair value of financial instruments, including issues observed when auditing fair value measurements of financial instruments that are not actively traded and issues regarding how third-party sources develop their estimates. During the meetings, information was obtained about the different valuation methodologies used by pricing sources, including the extent of transactions of comparable instruments and broker quotes used in the development of prices. Other topics discussed included types of substantive audit procedures that are used when a range of acceptable prices exists and auditors' use of centralized approaches to performing certain substantive procedures.

The staff's assessment of the potential need for changes to the existing standards also has been informed, in part, by the work and experience of other auditing standard setters that have updated and amended their standards. For example, the International Auditing and Assurance Standards Board ("IAASB") in 2009 issued a single standard that establishes requirements related to auditing accounting estimates and fair value estimates, International Standard on Auditing 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* ("ISA 540"). The ASB issued an analogous standard, AU-C 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* ("AU-C

---

<sup>19</sup> See generally *Accounting Standards Update 2014-09, Revenue from Contracts with Customers*, FASB in Focus (FASB, Norwalk, Connecticut), May 28, 2014 at 1.

<sup>20</sup> See generally paragraph 68 of Auditing Standard No. 12, *Identifying and Assessing Risks of Material Misstatement*.

<sup>21</sup> See footnote 7.



540").<sup>22</sup> However, notwithstanding these revisions to auditing standards, the issue of fair value measurement continues to be an issue of ongoing concern for audit regulators globally.<sup>23</sup>

Observations from the Board's oversight activities may illustrate some of the challenges of auditing accounting estimates and fair value measurements. The Board's inspection staff has identified audit deficiencies, at both large and small audit firms, that relate to various types of fair value measurements and accounting estimates.<sup>24</sup> Deficiencies were observed relating to auditing data and testing assumptions used in determining fair values, as well as issues relating to understanding information provided by third-party pricing sources sufficient to assess reliability and relevance of the information. Deficiencies were noted related to various aspects of substantive testing, including numerous situations in which auditors did not adequately test fair value measurements. Deficiencies were also noted related to auditing accounting estimates for a variety of audit areas, including the allowance for doubtful accounts or loan losses, goodwill and intangible asset impairment, inventory valuation allowances, and income tax valuation allowances.

The staff is in the process of reexamining the existing standards in view of the nature and extent of the Board's inspection findings. The staff understands that some auditors have expressed concern over perceived inconsistencies in the existing standards, including the existing standards' scope and required procedures. The staff

<sup>22</sup> The IAASB and ASB did not issue a separate standard for auditing derivatives and securities.

<sup>23</sup> See generally *Report on 2013 Survey of Inspection Findings*, IFIAR (April 10, 2014) at 1 [https://www.ifiar.org/IFIAR/media/Documents/IFIAMembersArea/MemberUpdates/IFIAR-Inspection-Survey-9-April-2014\\_1.pdf](https://www.ifiar.org/IFIAR/media/Documents/IFIAMembersArea/MemberUpdates/IFIAR-Inspection-Survey-9-April-2014_1.pdf), ("The survey, conducted in 2013, indicates the persistence of deficiencies in important aspects of audits and that there is a basis for ongoing concerns with audit quality."); *id.* at 2 ("For audits of listed [public interest entities (e.g., publicly traded companies)], the three inspection themes with the highest number of findings were: [f]air value measurement, [i]nternal control testing, and [a]dequacy of financial statements and disclosures.") (emphasis added). See also *2012 Summary Report of Audit Inspection Findings*, IFIAR (December 18, 2012), [https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR-2012-Summary-Report-of-Members-Inspection-Findings-18-Dec-12-\(2\).pdf](https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR-2012-Summary-Report-of-Members-Inspection-Findings-18-Dec-12-(2).pdf), at 2 ("The survey results indicate that the largest number of inspection findings in audits of public companies occurred in the following areas: [f]air value measurements; [i]nternal control testing; and [e]ngagement quality control reviews.") (emphasis added).

<sup>24</sup> See PCAOB Release No. 2010-006. See also PCAOB Release No. 2013-001.

has observed that while the existing standards became effective at different times and differ in scope, they share a number of common concepts and, in certain cases, common audit procedures.

The factors discussed previously, including the effect of changes to the financial reporting frameworks relating to accounting estimates and fair value measurements since the issuance of the existing standards, the complexity of certain accounting estimates and fair value measurements, and the evolution of auditing practices for testing the valuation of financial instruments, suggest the need to consider updating the existing standards. Further, the number of audit deficiencies identified in the Board's oversight activities also have led the staff to consider whether changes to the existing standards could improve audit quality, including by addressing perceived inconsistencies, further integrating the requirements of the existing standards with those of the risk assessment standards, and adding requirements in certain areas, such as with respect to the auditor's use of third parties.

## **C. Current Requirements and Certain Audit Practices**

### **1. Current Requirements**

As discussed above, current requirements of the PCAOB relating to auditing accounting estimates and fair value measurements are in the risk assessment standards and also in the existing standards.

The risk assessment standards set forth the foundational requirements for identifying, assessing, and responding to risk in an audit, and for evaluating the results of the audit. The risk assessment standards include requirements that apply broadly in an audit and contain several requirements that are specific to accounting estimates. Those requirements include specific procedures regarding identifying and assessing risks of material misstatement in accounting estimates,<sup>25</sup> evaluating identified misstatements in accounting estimates,<sup>26</sup> and evaluating potential management bias associated with accounting estimates.<sup>27</sup>

The existing standards contain specific procedures relevant to auditing accounting estimates and fair value measurements. AU sec. 328 and AU sec. 342 provide the primary procedural requirements related to auditing fair value

---

<sup>25</sup> See *generally* paragraph 13 of Auditing Standard No. 12.

<sup>26</sup> See paragraph 13 of Auditing Standard No. 14, *Evaluating Audit Results*.

<sup>27</sup> See paragraph 27 of Auditing Standard No. 14.

measurements and accounting estimates. These standards share common approaches for substantively testing accounting estimates and fair value measurements and certain common concepts under each approach. In general, there are three approaches common to both standards, as discussed below. When performing an audit, the auditor selects one or a combination of these approaches.

- Testing management's process.
  - The auditor generally evaluates significant assumptions used by management for reasonableness and tests the data used, including evaluating whether the data is complete, accurate and relevant.<sup>28</sup>
  - The auditor also evaluates the consistency of assumptions used by management.<sup>29</sup>
- Developing an independent estimate.
  - The auditor can use management's or alternative assumptions to develop an independent estimate or an expectation as to the estimate.<sup>30</sup>
- Reviewing subsequent events or transactions.
  - The auditor can use events or transactions occurring subsequent to the balance sheet date but prior to the date of the auditor's report to provide evidence about the reasonableness of the estimate.<sup>31</sup>

In addition to the common concepts described above, AU sec. 328 specifies additional procedures for testing management's process and developing an independent estimate.<sup>32</sup> For example, when the company estimates fair value using a valuation method, AU sec. 328.18 requires the auditor to evaluate whether the company's method of measurement is appropriate in the circumstances. AU sec. 332 primarily addresses auditing derivative instruments and the related assertions. This

---

<sup>28</sup> See generally AU sec. 342.11 and AU secs. 328.26–.39.

<sup>29</sup> *Id.*

<sup>30</sup> See generally AU sec. 342.12 and AU sec. 328.40.

<sup>31</sup> See generally AU sec. 342.13 and AU secs. 328.41–.42.

<sup>32</sup> See generally AU secs. 328.26 –.40.



standard also includes requirements regarding auditing valuation, including valuation based on an investee's financial results and testing assertions about securities based on management's intent and ability.<sup>33</sup>

## **2. Certain Aspects of Current Practice**

As described above, the Board, through its oversight activities, has observed practice issues and reviewed inspection findings relating to the auditor's evaluation of accounting estimates and fair value measurements. The staff understands that, in response to such inspection findings, some audit firms have taken steps to modify their internally developed audit guidance to improve compliance with the existing standards.

The PCAOB staff also has obtained information and conducted outreach to further understand current firm practices. The staff understands that many firms with international audit practices are familiar with and use ISA 540. Additionally, the staff has conducted outreach relating to how audit firms use third-party sources in the determination of accounting estimates and fair value measurements, including through the Task Force. The staff's understanding is that, depending on the nature of the estimate, such third-party sources may include, among others:

- Pricing services, which may provide pricing information generally available to customers; and
- Specialists,<sup>34</sup> who may develop independent estimates or assist in evaluating a company's estimate or the work of the company's specialist.

Some larger audit firms have implemented centralized approaches to developing independent estimates of fair value measurements of financial instruments. These firms may use centralized, national-level pricing desks or groups to perform certain procedures relating to the pricing of financial instruments. The level of information provided by these centralized groups to engagement teams varies. In some cases, the national-level pricing desk obtains price quotes from third-party pricing services and provides these quotes to the audit engagement team. In other cases, the national-level pricing desk itself may develop estimates of fair value for certain types of securities.

<sup>33</sup> See generally AU secs. 332.28 – .34 and AU secs. 332.56 – .57.

<sup>34</sup> The staff's agenda has a separate project relating to the use of specialists, *Auditors' Responsibilities with Respect to Other Accounting Firms, Individual Accountants, and Specialists*. See Office of the Chief Auditor, *Standard-Setting Agenda*, PCAOB (June 30, 2014), [http://pcaobus.org/Standards/Documents/201406\\_standard\\_setting\\_agenda.pdf](http://pcaobus.org/Standards/Documents/201406_standard_setting_agenda.pdf).

National-level pricing desks or valuation specialists employed by audit firms sometimes perform an analysis of prices obtained from pricing services, interact with the pricing services to obtain an understanding of controls and methodologies, and may provide information to inform an audit engagement team's risk assessment or evaluation of audit differences. In other cases, engagement teams do more of this work themselves.

As will be further discussed, the staff is exploring whether audit procedures tailored to the source of information used by the auditor are appropriate for developing an independent estimate. The staff is also seeking comment on emerging developments in current audit practices, particularly those related to the use of third parties including pricing services. The staff is specifically requesting views and relevant data on the following:

Questions:

1. Does the information presented above reflect aspects of current audit practice? Are there additional aspects of current practice, of both larger and smaller audit firms – including centralized testing, the use of third parties, or specific challenges to auditing accounting estimates and fair value measurements – that are relevant to the staff's consideration of the need for standard setting in this area?
2. The staff understands differences may exist in the use of centralized or national-level pricing desks at audit firms. The staff is interested in current practice for interaction between national-level pricing desks and engagement teams. For example, how (and by whom) are national-level pricing desks supervised given the engagement partner's responsibility under the risk assessment standards? How should these considerations affect auditing standards?
3. What other issues relevant to the need for standard setting should be considered by the staff?

## **Staff Consideration of Alternative Approaches**

### **A. Alternative Approaches**

The staff has identified a number of alternative approaches that the Board may wish to consider to address the issues raised regarding auditing accounting estimates and fair value measurements. The staff is interested in views relating to these alternative approaches, which are summarized below, together with certain considerations that may be relevant to the appropriateness of those alternatives.

### ***Issue Staff Guidance***

One alternative approach to standard setting would be for the staff to issue additional staff guidance. Since 2007, the PCAOB has issued six Staff Audit Practice Alerts that discuss various issues relating to auditing accounting estimates and fair value measurements.<sup>35</sup> The staff has considered issuing additional practice alerts or other staff guidance specific to the use of third parties, such as pricing services.<sup>36</sup> This approach could provide targeted guidance to auditors in a relatively short period of time. However, guidance issued by the staff would be limited to discussing the auditor's application of the existing standards and therefore may not be a long-term solution to the issues raised in this paper regarding auditing accounting estimates and fair value measurements.

### ***Develop a Separate Standard on Auditing Fair Value of Financial Instruments in Addition to the Existing Standards***

The staff has considered developing a separate standard that would specifically address auditing the fair value of financial instruments. This approach could provide a framework for auditors specific to an area that may pose significant auditing challenges. Existing PCAOB standards, however, already include requirements for auditing fair value measurements and for auditing derivatives and securities, and the addition of a separate standard could result in confusion and potential inconsistencies in the application of these standards. Additionally, the auditing issues pertinent to accounting estimates and fair value measurements, including financial instruments, inherently overlap.

### ***Enhance Existing Standards on Auditing Accounting Estimates and Fair Value Measurements Through Targeted Amendments***

The staff has considered amending, rather than replacing, the three existing standards relating to auditing accounting estimates, fair value measurements, derivatives, and securities. This approach could involve fewer changes to firms' existing audit methodologies. However, retaining multiple standards with similar requirements would not eliminate redundancy and could result in confusion and potential inconsistencies in the application of the standards. In addition, the nature and extent of

---

<sup>35</sup> See footnote 18.

<sup>36</sup> Other standard setters have issued guidance relating to their existing standards. For example, the IAASB issued International Auditing Practice Note 1000, *Special Considerations in Auditing Financial Instruments* (December 16, 2011), to provide guidance to auditors when auditing fair value measurements of financial instruments.

amendments that could be made to the existing standards could essentially result in new standards.

***Issue a New Single Standard That Addresses Auditing of Accounting Estimates and Fair Value Measurements and Supersedes the Existing Standards***

As discussed in this paper, the staff is currently considering developing a single standard on auditing accounting estimates and fair value measurements for the Board to consider proposing. The potential new standard the staff is considering would replace the existing standards. While this approach to standard setting may involve more significant change to existing PCAOB standards, a single standard on auditing accounting estimates and fair value measurements could provide a more comprehensive approach to auditing accounting estimates and fair value measurements that could promote more consistent auditor performance. In addition, a potential new standard that is further integrated with the risk assessment standards could help auditors improve their overall assessments of and responses to risks of material misstatement, including risks associated with accounting estimates and fair value measurements.

While this paper focuses on the development of a potential new standard, the staff is continuing to consider the various approaches described above and is seeking commenters' views on these matters.

**B. Overview of the Approach Being Considered by the Staff**

As noted above, based on research and outreach to date, the staff is considering developing a single standard for the Board to consider proposing that would supersede AU sec. 328 and AU sec. 342, and much of AU sec. 332. The potential new standard could be designed to: (i) align with the risk assessment standards; (ii) generally retain the approaches to substantive testing from AU sec. 328 and AU sec. 342, but include requirements that apply to both accounting estimates and fair value measurements; (iii) establish more specific audit requirements related to the use of third parties in developing accounting estimates and fair value measurements; and (iv) create a more comprehensive standard related to auditing accounting estimates and fair value measurements to promote greater consistency and effectiveness in application. Notably, the research and outreach conducted by the staff to date have not led the staff to initially conclude that the common approaches for testing accounting estimates and fair value measurements in the existing standards should be replaced. The potential new standard also could take into account the various ways that auditors develop independent estimates.

A potential new standard also could supersede the requirements in AU sec. 332 related to auditing the valuation of derivatives and securities. AU sec. 332 includes guidance and requirements related to auditing assertions, other than valuation with respect to derivatives and securities, that in many cases are duplicative of the requirements in the risk assessment standards. The staff is interested in commenters' views on (i) whether to supersede AU sec. 332 in its entirety, (ii) whether elements of AU sec. 332 should be retained, and (iii) whether enhancements could be made to this standard that could result in improved audit quality.

The staff is requesting views and relevant data on the following:

Questions:

4. Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included within a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?
5. Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition, that the staff should specifically take into account in developing a potential new standard?
6. Are there other considerations relating to the alternatives explored, including other alternatives not discussed in this paper, that the staff should consider in connection with this project?
7. Based on commenters' experience in applying ISA 540 (or AU-C 540), are there any aspects, positive or negative, of a single-standard approach that the staff should consider in connection within a potential new standard? Are there any other lessons learned from the implementation of ISA 540 (or AU-C 540) that the staff should consider in its approach to standard setting in this area?
8. If AU sec. 332 were to be superseded, are there elements that should be retained? With respect to derivatives and securities, are there enhancements related to auditing assertions other than valuation that the staff should consider?

9. Are there considerations relevant to auditing accounting estimates and fair value measurements including other regulatory requirements<sup>37</sup> specific to certain industries that the staff should take into account?

## **Key Aspects of a Potential New Standard and Related Potential Requirements**

This section discusses possible options for a potential new standard on auditing accounting estimates and fair value measurements (generally referred to as "accounting estimates" in this section) as well as related potential requirements under consideration. Similar to the existing standards, the objective of the auditor under a potential new standard would be to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable and in conformity with the applicable financial reporting framework. Although the staff continues to explore potential alternatives, this discussion focuses and seeks input on the approach of auditing accounting estimates through a single standard.

In summary, under the approach being considered by the staff:

- The auditor would continue to perform procedures in accordance with Auditing Standard No. 12 to identify and assess risks of material misstatement related to accounting estimates, and continue to perform procedures in accordance with Auditing Standard No. 13, *The Auditor's Responses to the Risks of Material Misstatement*, to design and implement an audit response to the identified and assessed risks. These include substantive procedures and, as appropriate, tests of controls.
  - Targeted amendments could be proposed to Auditing Standards Nos. 12 and 13 to specifically address accounting estimates and the related disclosures in certain areas.
- A potential new standard on accounting estimates would generally not duplicate or restate risk assessment requirements relating to the auditor's identification and assessment of risks of material misstatement in these areas. The potential new standard could establish specific requirements for performing substantive audit procedures for the auditor's response to identified and assessed risks of material misstatement related to accounting estimates.

---

<sup>37</sup> See, e.g., U.S. Securities and Exchange Commission ("SEC"), *Codification of Financial Reporting Policies Section 404.03, Accounting, Valuation and Disclosure of Investment Securities*, Accounting Series Release No. 118 (December 23, 1970).



- The specific requirements included in the potential new standard could generally retain the approaches for substantive audit procedures included in AU sec. 328 and AU sec. 342, but refine the requirements under each approach so that they are applicable to both accounting estimates and fair value measurements. For example:
  - Testing the company's process could include:
    - Evaluating specific considerations regarding whether the company's method used to develop accounting estimates is appropriate;
    - Audit procedures for testing data, including accuracy and completeness of the data, internal consistency of the data, and relevance to the measurement objective for the accounting estimate;
    - Factors to assist the auditor in identifying significant assumptions;
    - Factors that the auditor evaluates in determining the reasonableness of significant assumptions and
    - Auditor considerations when management uses a specialist.
  - Developing an independent accounting estimate could include:
    - Audit procedures tailored to whether the data and assumptions used in the independent accounting estimate were produced by the company, determined by the auditor, or obtained from a third party; and
    - Audit procedures specific to evaluating evidence obtained from third-party sources related to fair values of financial instruments.

- Evaluating audit evidence from subsequent events could include:
  - Factors for the auditor to take into account in evaluating the relevance of audit evidence from subsequent events or transactions.

#### **A. Alignment with the Risk Assessment Standards**

The staff is considering an approach to integrate a potential new standard with the risk assessment standards. The risk assessment standards set forth the foundational requirements for identifying, assessing, and responding to risk in an audit, and for evaluating the results of the audit. As a result, the staff believes it is important to consider the interaction of the risk assessment standards with any new auditing standards, especially standards that establish audit performance requirements. While the risk assessment standards apply broadly to identifying, assessing, and responding to risk in an audit, they also include requirements that are specific to accounting estimates.<sup>38</sup> In addition to the risk assessment standards, the existing standards also contain certain requirements that include elements of assessing the risks of material misstatement and that are specifically relevant to accounting estimates.<sup>39</sup>

As discussed earlier, under existing requirements, the auditor performs risk assessment procedures in accordance with Auditing Standard No. 12 to identify and assess risks of material misstatement related to accounting estimates and in accordance with Auditing Standard No. 13 to design and implement an audit response to the identified and assessed risks, including substantive procedures and, as appropriate, tests of controls. Under the approach being considered by the staff, a potential new standard could establish specific requirements for performing substantive audit procedures in response to identified and assessed risks of material misstatement related to accounting estimates, and generally would not duplicate or restate requirements relating to identifying and assessing those risks presented in Auditing Standard No. 12.

Additionally, the staff is exploring certain targeted amendments to the risk assessment standards that specifically address matters relating to accounting estimates. The potential amendments and the staff's possible approach for integrating a potential new standard with the risk assessment standards are discussed below.

---

<sup>38</sup> See, e.g., paragraph 27 of Auditing Standard No. 14.

<sup>39</sup> See, e.g., AU sec. 328.09.



## **1. *Identifying and Assessing Risks of Material Misstatement***

Auditing Standard No. 12 establishes requirements regarding the process of identifying and assessing risks of material misstatement.<sup>40</sup> This process involves obtaining an understanding of the company and its environment,<sup>41</sup> including among other things, the company's selection and application of accounting principles, and related disclosures.<sup>42</sup> Auditing Standard No. 12 further states that the accounts or disclosures for which judgment is used in the application of significant accounting principles, especially in determining management's estimates and assumptions, are relevant to the understanding of the company's selection and application of accounting principles.<sup>43</sup>

The risk assessment process under Auditing Standard No. 12 also involves obtaining an understanding of internal control over financial reporting.<sup>44</sup> This includes obtaining an understanding of the company's risk assessment process, information system relevant to financial reporting, and control activities. These requirements inform the auditor's understanding of how the company develops accounting estimates including related internal controls.

Further, Auditing Standard No. 12 requires the auditor to identify the significant accounts and disclosures and their relevant assertions based on their qualitative and quantitative risk factors such as the nature of the account or disclosure and the accounting and reporting complexities associated with the account or disclosure.<sup>45</sup> Accordingly, with respect to accounting estimates, it is important for the auditor to evaluate the nature of the asset or liability being valued and the measurement objective of the accounting estimate in determining whether the related account or disclosure is significant. The auditor also should determine the likely sources of potential misstatements related to accounting estimates. This includes determining whether the

---

<sup>40</sup> See paragraph 1 of Auditing Standard No. 12.

<sup>41</sup> See *generally* paragraphs 7 through 17 of Auditing Standard No. 12.

<sup>42</sup> See paragraph 7.c. of Auditing Standard No. 12.

<sup>43</sup> See paragraph 13 of Auditing Standard No. 12.

<sup>44</sup> See *generally* paragraphs 18 through 40 of Auditing Standard No. 12.

<sup>45</sup> See paragraph 60 of Auditing Standard No. 12.

components of accounting estimates and the related disclosures are subject to significantly differing risks.<sup>46</sup>

Lastly, under Auditing Standard No. 12, the auditor should determine whether any of the identified and assessed risks are significant risks; this includes identified and assessed risks related to accounting estimates.<sup>47</sup>

As the requirements in Auditing Standard No. 12 already apply to accounts and disclosures involving accounting estimates, additional audit requirements to identify and assess risks of material misstatement may not be necessary in a potential new standard. However, the staff is exploring whether certain targeted amendments to Auditing Standard No. 12, as further discussed, could enhance the existing requirements for identifying and assessing risk as they relate to accounting estimates.

#### Questions:

10. Should the requirements for identifying and assessing risks of material misstatement with respect to accounting estimates and fair value measurements – including risk assessment procedures – be included in Auditing Standard No. 12 or be separately set forth in a potential new standard on auditing accounting estimates?
11. Are there additions or revisions to the existing requirements in PCAOB standards for identifying and assessing risks of material misstatement regarding accounting estimates that should be considered?
  - a. Understanding Processes Used to Develop Accounting Estimates

The staff is considering recommending to the Board a potential amendment to Auditing Standard No. 12 to emphasize that the auditor, as part of understanding internal control over financial reporting, should understand the company's methods, data, assumptions, and use of third parties in developing accounting estimates. Auditing Standard No. 12 already requires that the auditor obtain an understanding of the company's information system relevant to financial reporting, including the classes of transactions in the company's operations that are significant to the financial statements, and the procedures by which those transactions are initiated, authorized, processed, recorded, and reported.<sup>48</sup> AU sec. 328 also requires that the auditor obtain an

<sup>46</sup> See *generally* paragraph 63 of Auditing Standard No. 12.

<sup>47</sup> See *generally* paragraphs 70 and 71 of Auditing Standard No. 12.

<sup>48</sup> See *generally* paragraph 28 of Auditing Standard No. 12.

understanding of the company's process for determining fair value measurements and disclosures, and of the relevant controls.<sup>49</sup>

A potential amendment to Auditing Standard No. 12 could state that, as part of obtaining an understanding of the company's information system relevant to financial reporting, the auditor should obtain an understanding of how a company develops its accounting estimates, specifically:

The processes used to develop accounting estimates, including:

- a. The methods, which may include models;
- b. The data and assumptions; and
- c. The extent to which the company uses a third party or information provided by a third party in developing the accounting estimates.

Questions:

- 12. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other matters relevant to understanding the process used to develop accounting estimates or fair value measurements that could be included in Auditing Standard No. 12?
- 13. In circumstances where the company uses information obtained from a third party, are there matters— such as information systems at third parties, controls that management has over the work of third parties, and controls at third parties— not currently addressed in AU sec. 324, *Service Organizations*, or other standards that the staff should consider?

b. Identifying Significant Accounts and Disclosures and Significant Risks

As discussed earlier, Auditing Standard No. 12 already requires that the auditor identify significant accounts and disclosures.<sup>50</sup> In the staff's preliminary view, additional requirements involving the identification of significant accounts and disclosures specific

<sup>49</sup> See AU sec. 328.09.

<sup>50</sup> See paragraph 59.e. of Auditing Standard No. 12.

to accounting estimates may not be necessary. However, the staff is considering recommending to the Board a potential amendment to Auditing Standard No. 12 to require that the auditor evaluate certain additional factors relevant to accounting estimates in determining which risks are significant risks.

Currently, Auditing Standard No. 12 sets forth certain factors used to evaluate which risks are significant risks. These factors include the degree of complexity or judgment in the recognition or measurement of financial information related to the risk, especially if the measurements involve a wide range of measurement uncertainty.<sup>51</sup> Subjective assumptions and complex calculations or models used to determine accounting estimates often can result in a wide range of measurement uncertainty. In the staff's view, certain environmental factors, such as changes in market liquidity, may affect the extent of unobservable inputs that are used to determine fair value measurements. The greater use of these unobservable inputs in turn may result in a wider range of measurement uncertainty.

As such, the staff is considering whether Auditing Standard No. 12 should be amended to add factors that an auditor should evaluate in determining which risks are significant risks. Specifically, the staff is considering recommending to the Board a potential amendment to paragraph 71 of Auditing Standard No. 12 that would require the auditor to take into account particular factors that could be relevant to assessing the degree of complexity or judgment in the recognition or measurement of an accounting estimate. For example:

In evaluating the degree of complexity or judgment in the recognition or measurement of an accounting estimate, especially those measurements involving a wide range of measurement uncertainty, the auditor should take into account:

- a. The extent of unobservable inputs used;
- b. The type of models or calculations used, if applicable;
- c. The degree of subjectivity associated with a future occurrence or outcome of events underlying the assumptions used such as estimates of future cash flows or prepayment assumptions; and
- d. The extent of market liquidity or activity for the asset or liability, if relevant to the measurement objective.

<sup>51</sup> See paragraph 71.f. of Auditing Standard No. 12.

Questions:

14. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other factors that would be relevant in the auditor's evaluation of the degree of complexity of judgment in the recognition or measurement of an accounting estimate or fair value measurement (e.g., the use of a third party for the determination of a price)?
15. Are there additional factors specific to accounting estimates or fair value measurements that would be useful in identifying significant accounts and disclosures, or in determining significant risks that should be considered?
16. Are there certain types of accounting estimates or fair value measurements that should be presumed to be significant risks?

**2. *Responding to the Risks of Material Misstatement***

Once the auditor has identified and assessed the risks of material misstatement pursuant to Auditing Standard No. 12, the auditor must design and implement an audit response to those risks pursuant to Auditing Standard No. 13.<sup>52</sup> The auditor's response includes tests of controls and substantive procedures, and requires the auditor to determine the nature, timing, and extent of the audit procedures to be performed. A potential new standard could focus on the nature of substantive procedures to be performed. Such an approach could require the auditor to continue to look to Auditing Standard No. 13 for requirements related to the timing and extent of those procedures.

The following discussion addresses other specific issues relevant to accounting estimates the staff is considering related to the auditor's response to risks.

Question:

17. Are there considerations particular to the timing and extent of these procedures (e.g., interim audit procedures), beyond the requirements of paragraphs 42–46 of Auditing Standard No. 13, that the staff should consider including in a potential new standard?

---

<sup>52</sup> See paragraph 3 of Auditing Standard No. 13.

a. Testing Conformity with the Applicable Financial Reporting Framework

In general, financial reporting frameworks govern the preparation of accounting estimates, and related disclosures. Under Auditing Standard No. 14, the auditor has a responsibility to evaluate whether the financial statements are presented fairly in conformity with the applicable financial reporting framework.<sup>53</sup> Further, AU sec. 328 requires the auditor to evaluate whether the disclosures about fair values made by the company are in conformity with GAAP. The auditor also evaluates whether the company has made adequate disclosures about fair value information.<sup>54</sup>

Given the existing requirement in Auditing Standard No. 14, the staff is not considering including in a potential new standard additional requirements for evaluating whether the company's disclosures are in conformity with the applicable financial reporting framework. However, the staff is exploring a potential amendment to the risk assessment standards to emphasize the auditor's responsibilities related to testing conformity with the applicable financial reporting framework. Specifically, the staff is contemplating whether an amendment to Auditing Standard No. 13 would be useful to underscore the importance of considering the related accounting requirements when auditing significant accounts and disclosures.

For example, paragraph 36 of Auditing Standard No. 13 could be amended by adding the following statement:

Performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.

Questions:

18. Is the potential amendment to Auditing Standard No. 13 described above helpful in emphasizing the auditor's consideration of the applicable accounting framework when auditing significant accounts and disclosures?

---

<sup>53</sup> See paragraph 30 of Auditing Standard No. 14.

<sup>54</sup> See *generally* AU secs. 328.43–.45.

19. Should a potential new standard include specific audit procedures related to auditing disclosures of accounting estimates (e.g., disclosures on levels within the fair value hierarchy<sup>55</sup>)?

b. Tests of Controls

As discussed previously, a possible approach for a potential new standard would be to focus on substantive procedures. Auditing Standard No. 12 requires the auditor to obtain an understanding of each of the five components of internal control sufficient to plan the audit.<sup>56</sup> The existing requirements in Auditing Standard No. 13 (and Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated With An Audit of Financial Statements*, as applicable) require the auditor to obtain evidence that the controls selected for testing were designed and operated effectively during the entire period of reliance.<sup>57</sup> While the requirements in existing PCAOB standards address tests of controls and can be readily applied to tests of controls over accounting estimates, the staff is considering whether additional requirements related to accounting estimates are necessary.

Question:

20. Given the existing requirements related to testing controls in Auditing Standard No. 13 (and Auditing Standard No. 5, as applicable), would specific requirements on testing internal controls over accounting estimates be useful (e.g., evaluation of design and operating effectiveness of key review controls over accounting estimates)?

c. Procedures Relating to Significant Risks

For significant risks, Auditing Standard No. 13 already requires the auditor to perform substantive procedures, including tests of details that are specifically responsive to the assessed risks.<sup>58</sup> The staff is considering whether a potential new standard should include additional audit procedures if the auditor concludes that an identified and assessed risk related to accounting estimates or fair value measurements is a significant risk.

---

<sup>55</sup> See FASB ASC, subparagraph 820-10-50-2b.

<sup>56</sup> See *generally* paragraph 18 of Auditing Standard No. 12.

<sup>57</sup> See paragraph 16 of Auditing Standard No. 13.

<sup>58</sup> See paragraph 11 of Auditing Standard No. 13.



The staff has considered the approach in ISA 540, which generally requires, for accounting estimates that give rise to significant risks, the auditor to evaluate: (i) reasonableness of management's significant assumptions; (ii) consideration by management of alternative assumptions or outcomes; and (iii) other steps taken by management to address estimation uncertainty in making the accounting estimate.<sup>59</sup> ISA 540 also requires the auditor to obtain sufficient appropriate audit evidence about whether management's decision to recognize the accounting estimates in the financial statements, and the selected measurement basis for the accounting estimates, are in accordance with the requirements of the applicable financial reporting framework.<sup>60</sup>

The staff believes that the procedures in the preceding paragraph are inherent in the requirements of Auditing Standard No. 13 and the other requirements discussed in this paper. Nonetheless, the staff is sensitive to concerns that auditors might need additional direction in the standard to adequately address measurement uncertainty associated with significant risks in accounting estimates. Thus, the staff seeks input on whether additional specificity is needed regarding the nature of potential audit procedures to respond to significant risks in accounting estimates.

Question:

21. Should a potential new standard include specific audit procedures that would be applicable when the auditor identifies and assesses a risk related to accounting estimates as a significant risk? If so, are there factors regarding measurement uncertainty or any other characteristics relevant to staff considerations of potential audit requirements?

## **B. Substantive Procedures for Testing Accounting Estimates**

The staff is exploring the nature of substantive procedures for testing accounting estimates that might be included in a potential new standard. Under existing audit requirements, the auditor performs substantive audit procedures in a manner that addresses the assessed risks of material misstatement for each relevant assertion of each significant account and disclosure.<sup>61</sup> This would include performing substantive audit procedures relating to accounting estimates in significant accounts and disclosures.

---

<sup>59</sup> See *generally* paragraph 15 of ISA 540.

<sup>60</sup> See paragraph 17 of ISA 540.

<sup>61</sup> See *generally* paragraph 8 of Auditing Standard No. 13.



As previously discussed, the existing standards require that the auditor use one or a combination of the following approaches to test accounting estimates: (i) test the company's process; (ii) develop an independent estimate; and (iii) review subsequent events and transactions. The staff is considering retaining these approaches, with possible refinements to the existing requirements. The staff is also exploring whether to provide direction on the selection of the appropriate testing approach. While the nature of the accounting estimate informs the auditor's selection of a testing approach, certain other factors may also affect this determination. For example, it is possible that the availability of audit evidence, the results of the auditor's tests of controls and the auditor's retrospective review required by paragraph 64 of AU sec. 316, *Consideration of Fraud in a Financial Statement Audit*, also could inform the auditor's selection of testing approaches.

The staff is considering including in the potential new standard factors the auditor should take into account when selecting testing approaches.

Questions:

22. Are there specific factors that affect the auditor's selection of approaches related to testing accounting estimates? What considerations would be appropriate for the auditor to take into account when determining which approach (or combination of approaches) for testing accounting estimates should be selected?
23. Aside from testing management's process, developing an independent estimate, or reviewing subsequent events and transactions as further discussed, should a potential new standard allow for or require other approaches to testing accounting estimates? If so, what other approaches would be appropriate?
24. Are there certain types of accounting estimates for which substantive procedures other than those described in this paper would provide better audit evidence?

**1. Testing the Company's Process**

As noted above, the staff is considering whether a potential new standard should retain the ability for the auditor to test the company's process used to develop an accounting estimate. A company's process for developing accounting estimates generally consists of a particular method used to develop the estimate and the relevant data and assumptions applied to the method. The method used to develop an accounting estimate depends on the measurement objective of the estimate and, in some instances, the requirements of the applicable financial reporting framework. In

some cases, observable market data may exist and be used by management in developing accounting estimates. In other cases, the accounting estimate is determined primarily using unobservable data.

A potential new standard could build on the requirements in the existing standards for testing the company's process including: (i) evaluating the appropriateness of the company's methods; (ii) testing the data used; and (iii) evaluating the reasonableness of significant assumptions. The staff is exploring possible enhancements to the requirements for testing the company's process, as discussed below. Further, the staff is exploring whether the existing requirements for testing the data used in paragraph 39 of AU sec. 328, could be included in a potential new standard or if those requirements should be enhanced.

Question:

25. Are there enhancements to the existing requirements for testing data used by management to develop the accounting estimate the staff should consider?

a. Evaluating the Company's Method Used to Develop an Accounting Estimate

The staff is considering what requirements a potential new standard could include relating to evaluating the company's method used to develop accounting estimates. The existing standards generally require that the auditor evaluate the appropriateness of the method used by the company to develop an accounting estimate. For example, AU sec. 328 requires that the auditor evaluate whether the company's method of measurement is appropriate in the circumstances when management uses a valuation method.<sup>62</sup> This evaluation includes, among other things, obtaining an understanding of management's rationale for selecting the valuation method, and considering certain factors related to the valuation method, such as the appropriateness in relation to the item being valued and the company's business, industry, and environment.<sup>63</sup>

A potential new standard could carry forward the concepts in the existing standards by requiring the auditor to evaluate whether the company's methods used to develop accounting estimates are appropriate. Further, as discussed below, the potential new standard could specify certain factors the auditor should evaluate as part of determining the appropriateness of the company's methods.

---

<sup>62</sup> See AU sec. 328.18.

<sup>63</sup> *Id.*

For example, similar to the existing standards, a potential new standard could require that the auditor, in evaluating whether the company's methods used to develop the accounting estimates are appropriate, evaluate whether the company's methods are in conformity with the applicable financial reporting framework. For certain accounting estimates, the financial reporting framework may suggest a specific method to be used in determining the accounting estimate. For example, in determining the value of certain share-based payment arrangements, the valuation technique utilized should meet the criteria outlined in the financial reporting framework -- such as use of a lattice or closed-form model.<sup>64</sup> In other instances, the financial reporting framework does not prescribe a specific method and may allow for a more principles-based approach to developing the accounting estimate or fair value measurement.

Consistent with the existing standards, a potential new standard also could require that the auditor evaluate whether the company's methods are accepted within the company's industry.<sup>65</sup> In cases where the financial reporting framework allows for judgment in the selection of the method for determining an accounting estimate, the auditor's evaluation could include whether the company's industry follows a particular method of measurement to develop the estimate. In those circumstances, the use of an alternate method by the company might pose additional risks that require audit attention similar to the requirements for evaluating the company's selection and application of accounting principles in Auditing Standard No. 12.

Similar to existing requirements, a potential new standard also could state that evaluating the appropriateness of the company's methods includes evaluating whether the methods used to develop accounting estimates are applied consistently.<sup>66</sup> The evaluation could take into account whether the consistency is appropriate, considering changes in the environment or circumstances affecting the company.<sup>67</sup>

The staff is aware that situations may arise where circumstances affecting the company would necessitate a change in the method used to develop an accounting

---

<sup>64</sup> See FASB ASC, Topic 718, Compensation—Stock Compensation, paragraph 10-55-16.

<sup>65</sup> See AU sec. 328.18.

<sup>66</sup> See AU sec. 328.19.

<sup>67</sup> *Id.*

estimate.<sup>68</sup> The staff also recognizes that, for some accounting estimates, more than one method to develop the estimate is permitted under the applicable financial reporting framework. To address those circumstances, a potential new standard could require the auditor to determine the reasons for the method selected by the company and to evaluate the appropriateness of the selection and the reasons for the change.

Further, in situations where a company uses more than one method in developing an accounting estimate, and the company has determined that different methods result in significantly different estimates, a potential new standard also could require the auditor to determine the reason for the method selected by the company and evaluate the appropriateness of the selection.

For example, a potential new standard could include the following requirements relating to the auditor's evaluation of the appropriateness of the company's methods used to develop an accounting estimate:

The auditor should evaluate whether the company's methods used to develop the accounting estimates are appropriate. In evaluating the appropriateness of the methods, the auditor should evaluate whether the methods are in conformity with the applicable financial reporting framework.

The auditor also should evaluate whether the methods are:

- a. Accepted within the company's industry; and
- b. Applied consistently, including whether consistency is appropriate considering changes in the environment or circumstances affecting the company.

If the company has changed the method for determining the accounting estimate, the auditor should determine the reasons for and evaluate the appropriateness of such changes.

In circumstances where the company has determined that different methods result in significantly different estimates, the auditor should determine the reasons for the method selected by the company and evaluate the appropriateness of the selection.

<sup>68</sup> Under these circumstances, the auditor should evaluate and report on a change in accounting estimate effected by a change in accounting principle in accordance with Auditing Standard No. 6, *Evaluating Consistency of Financial Statements*.

Questions:

26. Are the potential requirements described above for evaluating whether the company's method used to develop accounting estimates appropriate for both accounting estimates and fair value measurements?
27. In circumstances where the financial reporting framework does not specify the use of a particular valuation method, is the consideration of methods accepted by the company's industry relevant? Are there other criteria that auditors could use to evaluate the appropriateness of the company's method used to develop accounting estimates?

b. Evaluating the Reasonableness of Significant Assumptions

The staff is exploring potential enhancements to the requirements for identifying and evaluating the reasonableness of the significant assumptions underlying the company's accounting estimates. The audit procedures in the existing standards set forth requirements for identifying significant assumptions and testing those assumptions for reasonableness.<sup>69</sup> The staff envisions that similar requirements could be included in a potential new standard but with certain refinements. For example, for the purpose of evaluating reasonableness of the assumptions used by the company in developing an accounting estimate, the potential new standard could require the auditor to identify the assumptions used by management that are significant to the accounting estimate, that is, the assumptions that are important to the recognition or measurement of the accounting estimate in the financial statements. Similar to the existing standards, the auditor's evaluation of reasonableness could include, among other things, evaluating the significant assumptions for consistency with certain factors. A potential new standard could also take into account information the auditor obtained in performing procedures required by the risk assessment standards, such as information on the company's objectives and strategies and relevant industry factors.<sup>70</sup>

i. *Identifying Significant Assumptions*

The existing standards require the auditor to devote attention to the significant assumptions that management has identified.<sup>71</sup> A potential new standard could build on the existing requirement by also requiring the auditor to evaluate whether management

---

<sup>69</sup> See generally AU secs. 328.26–.36 and AU sec. 342.11.

<sup>70</sup> See generally paragraph 7 of Auditing Standard No. 12.

<sup>71</sup> See generally paragraph AU sec. 328.33.

has identified the significant assumptions in the accounting estimate. In the staff's view, in circumstances where the company has a robust process in place for developing accounting estimates, it is likely that management would have, as part of this process, identified the significant assumptions that were used. As such, the auditor would include those assumptions identified by management in the auditor's identification of significant assumptions. The auditor also may identify additional significant assumptions. To address circumstances when management has not identified as significant an assumption that is important to the overall measurement of the accounting estimate, a potential new standard could require the auditor to nevertheless test that significant assumption. The new requirement could help to assure that the significant assumptions are evaluated even if management has not identified or disclosed them to the auditor.

Further, to help the auditor determine whether the significant assumptions have been identified, the potential new standard could provide a description of significant assumptions, along with certain identifying characteristics. In a potential new standard, significant assumptions could include those that are important to the recognition or measurement of the accounting estimate in the financial statements, such as assumptions that:

- a. Cause a significant change in the accounting estimate, based on a minor variation in the assumption;
- b. Are susceptible to manipulation or bias;
- c. Are based on unobservable data;
- d. Are based on observable data adjusted by the company;
- e. Are based on the company's intent and ability to carry out specific courses of action; or
- f. Are otherwise important to the recognition or measurement of the accounting estimate.

Questions:

28. Would a requirement for the auditor to determine which assumptions used by management are significant assumptions present difficulties in practice? Should the staff consider a requirement for the auditor to identify

assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate?

29. Is the potential requirement suggested above clear and appropriate for both accounting estimates and fair value measurements? Are there other specific characteristics of significant assumptions that should be included?

*ii. Evaluating the Reasonableness of Significant Assumptions Identified*

As discussed earlier, the existing standards require the auditor to evaluate significant assumptions for reasonableness. A potential new standard could include a similar requirement. A potential new standard could also emphasize that the auditor, in evaluating the reasonableness of the assumptions, should take into account all relevant and reliable evidence, regardless of whether it appears to corroborate or contradict management's assertions regarding the assumptions. This is consistent with the requirements of Auditing Standard No. 14.

In addition, a potential new standard could include additional factors to take into account in evaluating the reasonableness of assumptions, drawing largely from the corresponding factors in AU sec. 328.<sup>72</sup> The factors could relate to information about the company and its environment obtained while performing procedures required by Auditing Standard No. 12.

The following requirement could be included in a potential new standard relating to the auditor's evaluation of the reasonableness of the identified significant assumptions:

---

<sup>72</sup> See generally AU sec. 328.36.



When evaluating significant assumptions, the auditor should evaluate the consistency of each significant assumption with the following, if applicable:

- a. Relevant industry, regulatory, and other external factors, including economic conditions;
- b. The company's objectives, strategies, and related business risks;
- c. Existing market information;
- d. Historical or recent experience, taking into account changes in conditions and events affecting the company; and
- e. Other interdependent assumptions used by the company.

Question:

- 30. Are the suggested factors described above appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluating the reasonableness of significant assumptions relevant to accounting estimates?

c. Management's Use of a Specialist

The staff is also exploring whether to include in a potential new standard audit procedures to address information developed by a company's specialist related to accounting estimates. Under existing requirements in AU sec. 328, management's assumptions include assumptions developed by management under the guidance of the board of directors and assumptions developed by a specialist engaged or employed by management.<sup>73</sup> The staff understands that a company's process to develop an accounting estimate or fair value measurement often includes using a specialist. A similar requirement to test assumptions could apply to both accounting estimates and fair value measurements.

Therefore, a potential new standard could include the existing requirement related to testing assumptions developed by a company's specialist in AU sec. 328, but apply it more broadly to information provided for accounting estimates. As such, if a company uses a specialist to develop an accounting estimate, a potential new standard

<sup>73</sup> See footnote 2 to AU sec. 328.05.



could direct the auditor to test that information as if it were produced by the company. In this case, the auditor would be required, as applicable, to evaluate the appropriateness of the methods, test the data used, and evaluate the reasonableness of significant assumptions, with respect to the information provided by the specialist. For example, the potential new standard could include the following requirement:

When the company uses a specialist employed or engaged by the company to develop an accounting estimate, the auditor should test the information provided by the specialist as if it were produced by the company.

Question:

31. Is the potential requirement described above appropriate for all types of accounting estimates? Are there other considerations that should be taken into account in applying this requirement to accounting estimates?

## **2. *Developing an Independent Accounting Estimate***

As noted earlier, the staff is considering that a potential new standard would continue to allow auditors to test accounting estimates by developing an independent estimate.

Under existing standards, when developing an independent estimate using management's assumptions, the auditor is required to evaluate those assumptions for reasonableness consistent with the procedures for testing management's process.<sup>74</sup> Instead of using management's assumptions, the auditor may use his or her own assumptions to develop an independent estimate. In that situation, the auditor nevertheless is required to understand management's assumptions. Under AU sec. 328, the auditor uses that understanding to ensure that his or her independent estimate takes into consideration all significant variables and to evaluate any significant difference from management's estimate.<sup>75</sup> The auditor also is required to test the data used to develop the independent estimate. AU sec. 342 takes a similar approach by allowing an auditor to independently develop an expectation as to the estimate by using

<sup>74</sup> See generally AU sec. 328.40.

<sup>75</sup> *Id.*

other key factors or alternative assumptions about those factors based on the auditor's understanding of the facts and circumstances.<sup>76</sup>

Auditors also may use third-party sources in developing independent accounting estimates, for example, information from third-party pricing sources when developing an independent estimate of the fair value of a financial instrument.

A potential new standard could retain the requirements from the existing standards for developing an independent estimate but recognize that auditors develop independent estimates in different ways. For example, a potential new standard could include audit procedures specific to the source (such as the company or a third party) of the data and assumptions. Including audit procedures that are tailored to the source of the data and assumptions may be more reflective of the various ways in which auditors determine independent estimates.

Under this approach, a potential new standard could present separate requirements that depend on the source of the data and assumptions, which may provide greater clarity regarding the procedures to be performed for developing an independent estimate.

A potential new standard could retain the ability for the auditor to develop an independent accounting estimate using his or her own assumptions or those produced by the company. Under this scenario, the potential new standard could generally include the requirements in the existing standards to test the accuracy and completeness of the data, evaluate the internal consistency of the data, and evaluate whether the data is relevant to the measurement objective for the accounting estimate.<sup>77</sup> This approach would retain the existing requirement in AU sec. 328 with regard to testing company-provided data.

If the auditor obtains data and significant assumptions from a third party in developing an independent estimate, the potential new standard could emphasize that, under those circumstances, the auditor evaluates the relevance and reliability of the data and assumptions obtained in accordance with Auditing Standard No. 15, *Audit Evidence*. Additional discussion of this potential requirement is included in the section titled "Evaluating Audit Evidence from Third-Party Sources" of this paper, including discussion of additional factors for evaluating the relevance and reliability that could be included in a potential new standard.

---

<sup>76</sup> See AU sec. 342.12.

<sup>77</sup> See generally AU sec. 328.39.

A potential new standard also could emphasize the auditor's responsibility to take into account all information relevant to the accounting estimate. This information could include, for example, consideration of significant variables from management's assumptions in circumstances where the independent accounting estimate is determined by the auditor.

As discussed earlier, AU sec. 328 requires the auditor to test data used to develop the fair value measurement. The staff is exploring how this requirement should apply when the auditors independently derive or obtain data from other sources. The staff recognizes that, in practice, the auditor may obtain data and assumptions from other sources other than the company. For example, the auditor could obtain mortality rates from a third party for the purposes of testing the company's pension liability. Based on its outreach, the staff understands that there may be limitations in testing data obtained from certain third-party sources for completeness and accuracy.

One approach may be that a potential new standard could nonetheless require that the auditor determine whether data is appropriate, which includes testing reliability and relevance to comply with paragraph 6 of Auditing Standard No. 15. In summary, the procedures to be applied when the auditor develops an independent accounting estimate could be tailored to the source of the data and assumptions used in the independent accounting estimate. For example, requirements in a potential new standard could include the following:

**Data and Assumptions Produced by the Company and Used by the Auditor in Developing an Independent Estimate**

- When developing an independent estimate using data and assumptions produced by the company, the auditor should test the accuracy and completeness of the data, evaluate the internal consistency of the data, and evaluate whether the data is relevant to the measurement objective for the accounting estimate.
- The auditor should also evaluate the reasonableness of the significant assumptions, which includes identifying the assumptions that are important to the recognition or measurement of the accounting estimate in the financial statements.

**Data and Assumptions Obtained by the Auditor from Third Parties and Used in Developing an Independent Estimate**

- When the auditor obtains data and significant assumptions from a third party, the

auditor should evaluate the relevance and reliability of the data and assumptions in accordance with the requirements of Auditing Standard No. 15, *Audit Evidence*.

Questions:

32. Are the potential requirements described above for developing an independent estimate, including the potential requirements regarding testing data and assumptions, clear and appropriate for both accounting estimates and fair value measurements? Would these requirements present challenges for certain types of accounting estimates and fair value measurements?
33. Are there additional considerations that should be addressed with respect to information obtained by the auditor from a third-party source?
34. Are there factors that the staff should consider when developing potential audit requirements for testing the reliability and relevance of data independently derived by the auditor or obtained from other sources?

a. Developing an Independent Accounting Estimate as a Range

Auditing Standard No. 14 provides for developing a range of possible estimates for purposes of evaluating misstatements relating to accounting estimates. In addition, AU sec. 342.12 states that the auditor may independently develop an expectation of an estimate by using other key factors or alternative assumptions about those factors.

The staff is considering what a potential new standard could include related to developing an independent estimate as a range of estimates. One approach may be for a potential new standard to emphasize that the estimate is limited to outcomes within the range that are supported by sufficient appropriate audit evidence.

Question:

35. Are there other matters relevant to developing a range that a potential new standard could address (e.g., requiring a sensitivity analysis)?

**3. Evaluating Audit Evidence from Subsequent Events**

As previously discussed, the staff is contemplating that a potential new standard would continue to allow auditors to test accounting estimates by reviewing subsequent events and transactions. The existing requirements recognize that events and

transactions that occur after the balance-sheet date but before the date of the auditor's report may provide audit evidence regarding management's accounting estimates and fair value measurements as of the balance-sheet date.<sup>78</sup> Additionally, the existing standards recognize that such information may be important in identifying and evaluating the reasonableness of accounting estimates or assumptions used in the preparation of an accounting estimate.<sup>79</sup>

Existing PCAOB standards also provide that some subsequent events or transactions may reflect changes in circumstances occurring after the balance-sheet date and thus do not constitute appropriate evidence of the fair value measurement at the balance-sheet date (for example, the prices of actively traded marketable securities that change after the balance-sheet date).<sup>80</sup> A potential new standard also could include a similar procedure that makes allowance for these considerations. A potential new standard might also include factors for the auditor to take into account when evaluating the relevance of the audit evidence from the subsequent events or transactions.

For example, requirements in a potential new standard addressing the use of subsequent events could include the following:

When the auditor obtains audit evidence from events or transactions that occur subsequent to the measurement date, the auditor should determine that the audit evidence is reliable and relevant to the recorded accounting estimate.

- In evaluating the relevance of the audit evidence from the event or transaction to the accounting estimate, the auditor should take into account:
  - The period between the event or transaction date and the measurement date;
  - The comparability of the event or transaction involved to the company's accounting estimate, as appropriate; and
  - Changes in the company's circumstances or the general economic conditions between the event or transaction date and the measurement date.

<sup>78</sup> See generally AU sec. 328.41 and AU sec. 342.13.

<sup>79</sup> See generally AU sec. 342.13.

<sup>80</sup> See AU sec. 328.42.

Questions:

36. Are the potential requirements described above for evaluating audit evidence from events or transactions that occur subsequent to the measurement date through the date of the auditor's report, appropriate for both accounting estimates and fair value measurements?
37. Are there additional factors that should be taken into consideration when evaluating the relevance of the audit evidence obtained from events or transactions that occur subsequent to the measurement date through the date of the auditor's report?

**C. Use of Third Parties**

As previously discussed, the staff is exploring ways a potential new standard could address the varying circumstances when auditors obtain information from third parties, including specialists engaged by the auditor. Based on its outreach, the staff understands that auditors often engage a specialist or use specialists on staff for the purpose of developing an independent estimate. One approach would be for the auditor to continue to look to the requirements of existing PCAOB standards (e.g., AU sec. 336, *Using the Work of a Specialist*), as applicable. However, an auditor may obtain information from third-party sources that provide the same information to the public. For example, pricing services often provide uniform price information and other data about financial instruments to the public for a fee. In that case, the auditor does not engage the third party specifically to develop an estimate; rather, the auditor obtains information that is developed for, and widely available to, the public. In other cases, the auditor obtains a specific estimate directly from a third-party source that is generated specifically for the auditor. The staff is considering developing an approach in the potential new standard that could potentially recognize some of these differences.

In other instances, third parties, for example pricing services, may be used by both the company and the auditor to provide values of financial instruments. In other instances, a company might use values of financial instruments provided by a third party, for example a custodian, who obtains the values from the same pricing service used by the auditor. These instances may raise questions about whether the auditor could arrive at an independent estimate.

The staff is considering including a requirement that would apply when the auditor and the company use the same third-party source to arrive at an accounting estimate. For example:



If the third-party source used by the auditor is the same as the third-party source used by the company, the auditor should evaluate the audit evidence obtained as if it were produced by the company, which includes testing data and evaluating reasonableness of significant assumptions.

Questions:

38. Would the potential requirements described above address procedures performed by audit firms that use a centralized testing approach? Would these requirements create issues in practice for smaller firms?
39. Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?

**1. *Evaluating Audit Evidence from Third-Party Sources***

As part of its overall outreach to date, the staff sought input on auditors' use of third-party sources in obtaining fair value measurements of financial instruments. The discussions with the Task Force members brought to light the various methodologies used by third-party pricing sources to value these instruments and the measurement uncertainty inherent in those valuations. The existing standards address the auditor's consideration of data and assumptions in the determination of fair value measurements.

The staff understands that, in many cases, financial instruments are valued using methodologies that incorporate a mix of inputs. Further, available observable inputs may be adjusted for other market factors in the ultimate determination of the price. The existing standards do not specifically address the use of alternate valuation methodologies employed by many pricing sources. The staff also understands that pricing sources are increasingly providing products that could provide auditors with insight as to how their prices or estimates are developed.

The staff is considering how a potential new standard could address audit evidence obtained from third-party sources, such as pricing services and broker-dealers. In considering potential requirements related to fair value of financial instruments, the staff recognizes the nature of evidence obtained from third-party sources varies based on the type of instrument being valued and the source of information used by pricing services. Some pricing services provide consensus prices; that is, a value derived from prices provided by each subscriber to the services. Other pricing services use their own methodology based on various market data obtained or

derived from other sources, including trades of comparable instruments, broker quotes, and historical trade activity to determine a value. Pricing services also may combine multiple approaches to arrive at a value for a particular instrument.<sup>81</sup>

Furthermore, auditors also may obtain a price for a financial instrument directly from a broker-dealer that is based (or not based) on a binding quote. Given the differences in how values of financial instruments are derived and obtained, the staff is exploring whether a new standard should set forth specific requirements for evaluating information from third-party pricing sources as part of evaluating the relevance and reliability of the evidence pursuant to Auditing Standard No. 15.

Under that approach, the auditor would first evaluate the reliability of the evidence provided by the third-party pricing source, taking into account certain factors. For example:

- a. The experience and expertise of the third party relative to the type of asset or liability being valued; and
- b. The methods used by the third party in determining fair value for the specific company's assets or liabilities being tested and whether the methodology used is in conformity with the applicable financial reporting framework.

Under this approach, the auditor would then evaluate the relevance of the evidence obtained from the third-party source. For example:

The auditor should evaluate whether the evidence provided by the third-party source is relevant to the fair value measurement, which includes determining the following:

- a. Whether fair values are based on trades of the same instrument or active

<sup>81</sup> See generally SEC, Money Market Reform; Amendments to Form PF, Investment Company Act Release No. 31166 (July 23, 2014) at 281-82, 79 Federal Register 47736 (August 14, 2014) at 47813 ("In matrix pricing, portfolio asset values are derived from a range of different inputs, with varying weights attached to each input, such as pricing of new issues, yield curve information, spread information, and yields or prices of securities of comparable quality, coupon, maturity, and type. ... [P]rices from third-party pricing services ... may take into account these inputs as well as prices quoted from dealers that make markets in these instruments and financial models.") (footnotes omitted).



market quotations;

- b. When the fair values are based on transactions of comparable assets or liabilities, how those transactions are identified and considered comparable;
- c. When there are no transactions either for the asset or liability or comparable assets or liabilities, how the information was developed including whether the inputs developed represent the assumptions that market participants would use when pricing the asset or liability, if applicable; or
- d. When the fair value measurement is based on a broker quote, whether the broker quote:
  - i. Is from a market maker who transacts in the same type of financial instrument; and
  - ii. Is binding or nonbinding, with more weight placed on quotes based on binding offers.

Questions:

- 40. Would the factors noted above help the auditor in evaluating the reliability and relevance of evidence obtained from third-party pricing sources? Are there other factors that are applicable in determining the reliability or relevance of evidence obtained from third-party pricing sources?
- 41. Are there other approaches to testing evidence obtained from third-party pricing sources that the staff should consider?
- 42. How could a potential new standard differentiate between a third-party pricing source and a specialist?
- 43. Would the potential requirement address the various methods used by third-party pricing sources for determining fair value measurements of financial instruments (e.g., use of consensus pricing and proprietary models)?

## Questions Related to Economic Impacts and Implications

As the staff continues to explore an appropriate standard-setting approach, it is interested in information and views regarding economic implications of the alternatives described above. The staff is seeking data and other information on current practices and potential regulatory alternatives that would help to inform its analysis. This includes information on the likely costs and benefits of a potential new standard and of alternative approaches, such as those discussed in the section titled "Staff Consideration of Alternative Approaches."

The staff welcomes the views of commenters on the general economic implications of alternatives, including a potential new standard discussed in this paper, and on these specific matters:

Questions:

44. What are the likely economic impacts, including benefits and costs, of the potential alternatives discussed in this consultation paper? Are there any unintended consequences that might result from the alternatives?
45. As part of considering the need for change, the staff is reviewing academic literature, including identified papers that synthesize the academic literature.<sup>82</sup> Is there ongoing research or other information that the staff should consider in evaluating the economic aspects of changes in standards for auditing accounting estimates and fair value measurements?

\* \* \*

---

<sup>82</sup> See, e.g., Roger D. Martin, Jay S. Rich, and T. Jeffrey Wilks, *Auditing Fair Value Measurements: A Synthesis of Relevant Research*, 20 *Accounting Horizons*, 287 *passim* (2006); Brant E. Christensen, Steven M. Glover, and David A. Wood, *Extreme Estimation Uncertainty in Fair Value Estimates: Implications for Audit Assurance*, 31 *Auditing: A Journal of Practice & Theory*, 127 *passim* (2012); Timothy B. Bell and Jeremy B. Griffin, *Commentary on Auditing High-Uncertainty Fair Value Estimates*, 31 *Auditing: A Journal of Practice & Theory*, 147 *passim* (2012); and Brian Bratten, Lisa Milici Gaynor, Linda McDaniel, Norma R. Montague, and Gregory E. Sierra, *The Audit of Fair Values and Other Estimates: The Effects of Underlying Environmental, Task, and Auditor-Specific Factors*, 32 *Auditing: A Journal of Practice & Theory*, 7 *passim* (2013).



**Exhibit 2(a)(C)**

**Alphabetical List of Commenters on the Proposal in  
PCAOB Release No. 2017-002**

1	Accountancy Europe
2	American Bankers Association
3	Baker Tilly Virchow Krause, LLP
4	BDO USA, LLP
5	Brad Bowen, CPA
6	California Society of Certified Public Accountants
7	California State Teachers' Retirement System
8	Center for Audit Quality (2 Letters)
9	Colorado PERA
10	Council of Institutional Investors
11	Crowe Horwath LLP
12	Deloitte & Touche LLP
13	Duff & Phelps, LLC
14	Environmental Risk Communications, Inc.
15	Ernst & Young LLP
16	Federal Deposit Insurance Corporation; Board of Governors of the Federal Reserve System; Office of the Comptroller of the Currency
17	Financial Executives International
18	Dr. Steven Glover, Professor, Brigham Young University; Dr. Brant Christensen, Professor, University of Missouri

<b>Alphabetical List of Commenters on the Proposal in PCAOB Release No. 2017-002</b>	
19	Grant Thornton LLP
20	Harvest Investments, Ltd.
21	ICE Data Services
22	Illinois CPA Society
23	Institut der Wirtschaftsprüfer
24	Institute of Management Accountants
25	Investment Company Institute
26	KPMG LLP
27	Mazars USA LLP
28	National Association of Real Estate Investment Trusts
29	National Association of State Boards of Accountancy
30	National Venture Capital Association
31	Oak Advising & Consulting, Inc.
32	PricewaterhouseCoopers LLP
33	RSM US LLP
34	Texas Society of Certified Public Accountants
35	The Institute of Chartered Accountants in England and Wales
36	U. S. Chamber of Commerce, Center for Capital Markets Competitiveness
37	U.S. Government Accountability Office



Office of the Secretary  
PCAOB

Sent by email:  
comments@pcaobus.org

Brussels, 24 August 2017

**Subject: Proposed auditing standard on Auditing Accounting Estimates, Including Fair Value Measurements and amendments to other PCAOB auditing standards**

Dear Sir or Madam,

- (1) Accountancy Europe (previously known as FEE, the Federation of European Accountants) welcomes the opportunity to comment on the PCAOB proposal: “Proposed auditing standard on Auditing Accounting Estimates, Including Fair Value Measurements and amendments to other PCAOB auditing standards”. Our main comments are summarised hereafter.

**GENERAL COMMENTS**

- (2) Given the deficiencies detected in audit inspections in the area of audits of accounting estimates and fair value measurements, and the fact that PCAOB standards covering this subject matter have not been revised recently, we commend the PCAOB for undertaking this project.
- (3) We welcome a specific standard dedicated to accounting estimates and fair value measurement. It is important to combine the risk assessment aspect with the substantive testing one. However, this task should be undertaken cautiously keeping in mind that:
- The standard covering the whole subject matter needs to include high level principles and allow practitioners to use a level of judgement to adapt their work depending on the nature of the estimates and fair value measurements to be audited. There is also a danger that if the standard becomes over-engineered, the public expectations may become unrealistic in relation to the auditor's ability to obtain evidence for what remain subjective estimates.
  - In some cases, it is important to include a level of ‘conditionality’ in those requirements which are not applicable in all circumstances. As demonstrated by the revision of ISA 540 Auditing Accounting Estimates, including Fair Value Estimates, and Related Disclosures, it is possible to bring these two areas together: a high-level principles-based standard in which guidance is developed in a sufficient level of detail as needed.
  - The concept of ‘challenging management’ when auditing accounting estimates and fair value measurements should appear more thoroughly in the proposal. This aspect is essential in dealing with this topic and this is why we encourage the PCAOB to emphasise more the due process to be applied to correctly apply professional judgment to support third-party evidence.

- (4) We favour alignment of auditing standards globally to the maximum extent possible that enhances both the quality of audits and the acceptance of audit work globally. Nevertheless, we note that the PCAOB has decided to take a different route than the one of the IAASB in its project on revising ISA 540 Auditing Accounting Estimates, including Fair Value Estimates, and Related Disclosures. It will be helpful that the PCAOB provides details about the rationale for doing so in the surround material.
- (5) Our detailed responses to the questions included in the PCAOB proposal are set out below. For further information, please contact my colleagues Hilde Blomme at [hilde@accountancyeurope.eu](mailto:hilde@accountancyeurope.eu) or Noémi Robert at [noemi@accountancyeurope.eu](mailto:noemi@accountancyeurope.eu).

Sincerely,



Olivier Boutellis-Taft

Chief Executive

#### About Accountancy Europe

Accountancy Europe unites 50 professional organisations from 37 countries that represent close to **1 million** professional accountants, auditors, and advisors. They make numbers work for people. Accountancy Europe translates their daily experience to inform the public policy debate in Europe and beyond.

Accountancy Europe is in the EU Transparency Register (No 4713568401-18)

## APPENDIX: RESPONSES TO QUESTIONS

---

### Questions 1-5: Discussion on the Proposed Rules

- (6) The information included in the proposal satisfactorily reflects the current audit practice. We agree with the PCAOB that it is not acceptable for the auditor to take valuations at face value without further investigation.
- (7) We welcome the idea of developing a single standard dedicated to this subject matter. However, with one standard covering the whole subject matter, it should remain high level and allow practitioners to use an appropriate level of professional judgement to adapt the work depending on the nature of the estimates and fair value measurements to be audited. In some cases, it would also be welcomed to include a level of “conditionality” in those requirements which are not applicable in all circumstances.
- (8) The proposal mentions that many firms with international audit practices are familiar with and use ISA 540. As referred to above in our general comments, we favour alignment of auditing standards globally to the maximum extent possible that enhances both the quality of audits and the acceptance of audit work globally. Nevertheless, we note that the PCAOB has decided to take a different route than the one of the IAASB in its project on revising ISA 540 Auditing Accounting Estimates, including Fair Value Estimates, and Related Disclosures. It will be helpful that the PCAOB provides details about the rationale for doing so in the surround material.
- (9) Guidance provided by standards that are aimed at being applied internationally should not be turned into a set of excessive additional requirements. We recommend the PCAOB to limit its requirements as far as possible so that the auditing standards remain principles based. We do not believe that auditing standards need to address issues relating, for instance, to national level pricing desks. They are essentially issues of methodology and are not relevant to the development of auditing standards.

---

### Questions 6-11: Economic considerations

- (10) Whilst it is difficult to provide specific comments given that the incremental work required will depend upon the specific facts and circumstances, we think that a too detailed list of requirements to be applied in all situations will most probably result in a “check the box approach” that will increase costs but not necessarily improve quality.

---

### Question 12-13: Special Considerations for Audits of Emerging Growth Companies

- (11) Nothing to report

---

### Question 14: Applicability of the Proposed Requirements to Audits of Brokers and Dealers

- (12) Nothing to report

---

### Questions 15-16: Effective Date

- (13) The timing envisioned by the PCAOB should take into account the deliberations on ISA 540 project of the IAASB. As flagged in the proposal, ISA 540 is in the process of being revised. It is strategic that the PCAOB follows its finalisation and adapt the revision of the PCAOB standard if need be. The consistency of both sets of standards would enhance both the quality of audits and the acceptance of the audit work globally.

---

### Question 17: Proposed Standard: Scope and Objective

- (14) We agree with the scope and objective of the proposed standard.

- (15) We think that the concept of “challenging management” when auditing accounting estimates and fair value measurements should be more prominent in the proposed standard. In our view, this aspect is essential in dealing with this topic and this is why we encourage the PCAOB to emphasise more the due process to be applied to correctly apply professional judgment to support third-party evidence.

---

**Questions 18-19: Proposed Standard: Responding to Risks of Material Misstatements**

- (16) We agree with the approach taken in the proposed standard regarding the response to risks of material misstatements.

---

**Questions 20-23: Proposed Standard: Testing the Company’s Process Used to Develop the Accounting Estimate**

- (17) The auditor’s selection of approaches related to testing accounting estimates is important. Where there is a choice between developing an independent estimate, reviewing subsequent events or performing work on management’s process, the latter is often chosen. It might be helpful to suggest that this is not always the most appropriate approach and to emphasise more that professional scepticism should be demonstrated by challenging the work done by management rather than seeking corroborative evidence only. Nevertheless, we do not believe that auditing standards should attempt to cover all eventualities in this level of detail.

---

**Questions 24-29: Proposed Standard: Developing an Independent Expectation of the Estimate**

- (18) Auditors often develop “a range” of acceptable estimates or fair value measurements, but developing an independent accounting estimate by the auditor, as referred to in the proposal, could be the right way forward in some cases, but not in others. We favour a hierarchy of approaches and a scaled audit response. Emphasising the need to challenge the estimate provided by the entity is an important step forward: the auditor will have to question its reasonableness, benchmark it and compare the amount to a realistic scale for a given industry and instrument. Having said that, it might sometimes also be difficult for the auditor to find other sources of information, benchmark this information or compare the amount to a realistic scale for a given industry.

---

**Question 30: Proposed Standard: Evaluating Audit Evidence from Events or Transactions Occurring After the Measurement Date**

- (19) We agree that subsequent events or transactions occurring after the balance-sheet date should be addressed by the PCAOB Standard. The requirements described in the proposal appear adequate. An important caveat is that subsequent events should only be taken into account to the extent that it is permitted by the accounting principles relevant to the estimate in question.

---

**Questions 31-38: Special Topics**

- (20) Nothing to report

---

**Questions 39-43: Proposed Amendments to PCAOB Standards**

- (21) Nothing to report



August 1, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803

Via website submission: [comments@pcaobus.org](https://comments@pcaobus.org)

Re: PCAOB Rulemaking Docket Matter No. 043: Proposed Auditing Standard – *Auditing Accounting Estimates, Including Fair Value Measurements*

To Whom It May Concern:

The American Bankers Association (ABA<sup>1</sup>) appreciates the opportunity to comment on the Proposed Auditing Standard – *Auditing Accounting Estimates, Including Fair Value Measurements* (the Proposal). Accounting estimates and fair value measurements are pervasive throughout bank financial statements, mainly through the allowance for loan and lease losses (ALLL) and the measurement of other financial assets and liabilities. While PCAOB standards technically apply only to audits of public companies, for practical purposes, the proposed revisions will likely be considered interpretations of current and future standards of audits related to non-public companies, as the Proposal is largely consistent with the concurrently outstanding proposal issued by the International Auditing and Assurance Standards Board (IAASB) to address international auditing standards.<sup>2</sup> We have attached our comments to the IAASB proposal as an Appendix.

Not only do the accounting estimates and fair value measurements made within bank financial statements involve significant judgment, but third-party specialists and pricing services – addressed in a related proposal<sup>3</sup> – are often used by banks of all sizes in generating such estimates. With the Accounting Standards Updates (ASUs) recently issued by the Financial Accounting Standards Board (FASB) that will change how loan fair values are disclosed and

---

<sup>1</sup> The American Bankers Association represents banks of all sizes and charters and is the voice for the nation's \$14 trillion banking industry and its two million employees.

<sup>2</sup> See IAASB Proposed International Standard on Auditing 540 *Auditing Accounting Estimates and Related Disclosures (Revised)*. <http://www.ifac.org/publications-resources/proposed-international-standard-auditing-540-revised-auditing-accounting>. We believe the Auditing Standards Board of the American Institute of CPAs, which sets auditing standards for non-public companies in the U.S., will largely adopt the IAASB proposal without significant modification.

<sup>3</sup> PCAOB Release No. 2017-003 *Proposed Amendments to Auditing Standards for Auditor's Use of The Work of Specialists*.

how credit losses are measured<sup>4</sup>, it is easy to see that the Proposal will have a significant impact on audits of banking institutions.

### **The Costs of the Proposal Exceed its Benefits, Due to Upcoming Accounting Standards**

The Proposal appears to attempt to codify the increasingly extensive documentation that auditors of large banks have required over the past few years – in response to PCAOB inspections – to support the quantitative assumptions made by management in their accounting estimates. The Proposal also stresses the need for professional skepticism during audits. For example, terms such as “corroborate” are replaced by “evaluate” and “compare” in order for the auditor to challenge any potential bias in management’s judgments. The intent behind these aspects of the Proposal seems understandable. However, if approved, the requirements of the Proposal will result in significantly higher audit costs and, possibly, the end of the ability of many local auditing firms to audit community banks. Worse, however, it will do so with no significant improvement to auditing of the most significant balance on most bank balance sheets – the allowance for loan and lease losses (ALLL). In other words, the costs of the expanded documentation and audit responsibilities will exceed its benefits.

The Proposal notes that one of the main benefits of the proposed standard will be from a capital market perspective:

“An increase in investors' confidence about the information provided in companies' financial statements resulting from improved audit quality can increase the efficiency of capital allocation decisions”

We generally agree with the statement. However, any declines in investor confidence in bank financial statements have not been the result of insufficient auditor scrutiny, but rather because highly judgmental estimates of the fair value of financial instruments and the ALLL are made during times of illiquid markets and intense economic uncertainty. The assumptions, and their quantitative impacts, will always be subject to intense skepticism and no auditing standard will increase investor confidence in the assumptions made during these times.<sup>5</sup> Going forward, however, with the CECL standard’s requirement to forecast the depth and timing of such future economic uncertainty, there will likely be nothing an auditor can do to increase investor confidence in such estimates *at any point in the economic cycle*. With that in mind, the main benefits cited in the Proposal are highly questionable.

---

<sup>4</sup> FASB Accounting Standards Updates 2016-1 (*Recognition and Measurement of Financial Assets and Financial Liabilities*) and 2016-13 (*Measurement of Credit Losses on Financial Instruments* – also known as “the CECL Standard”).

<sup>5</sup> ASU 2016-13 acknowledges that “estimating expected credit losses is highly judgmental” and the nature of estimating credit losses is subjective.

We believe the upcoming implementation of ASU 2016-1 (specifically related to the requirement of disclosing the fair value of loans at “exit price”) and the CECL standard, in light of the requirements in the Proposal relating to scrutiny of management’s assumptions, will require significantly more supporting documentation from the bank and more industry expertise on the part of the auditor. This will be costly to banks, especially at the community bank level, where auditors may need to hire valuation and credit risk specialists to determine whether the highly judgmental assumptions are “reasonable.” In light of the IAASB’s observation in their proposed revision to International Standard on Auditing 540 that, if the auditor decides to perform an independent estimate, its range for the estimate “may be multiples of materiality for the financial statements”, it is very difficult to see the value that such a specialist brings to a bank investor. As a result, the PCAOB must recognize that the costs of the Proposal will be borne by many smaller banks that may have to hire larger auditing firms.

### **The Final Standard Must Recognize that Bias is Inherent to CECL**

A significant portion of the Proposal discusses professional skepticism and the elimination of management bias in accounting estimates.<sup>6</sup> This seems reasonable for fair value estimates, as the estimates made are supposedly based on market-based assumptions. However, subjectivity and bias are inherent features of the CECL standard. True, CECL assumptions are meant to be “reasonable and supportable” and there may be the notion that the auditor can detect bias that is considered unreasonable. However, due to the non-linear relationship of economic forecasts to credit losses (for example, there are often no credit losses on collateral-based loans until a specific loan-to-value ratio is reached), small differences in forecasted macroeconomic factors can often have a large impact on the reported financial performance. Unreasonable bias will often be very difficult to detect. By the design of the CECL standard, there will be no practical way to reduce management bias in a way that brings investor confidence in the financial statements.

Designing and testing an internal control system intended to eliminate bias in such an environment will include quarterly analysis of which assumptions are (and are not) significant in each estimate. For example, as consideration of prepayments is required within CECL, short-term movement of interest rates can sometimes be a significant assumption, and sometimes not. More significantly, however, is that for practical purposes, the Proposal effectively requires a bank to perform a sensitivity analysis of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect.<sup>7</sup> While this sensitivity test can be performed in many ways, ABA believes it is likely it will include probability weighting—a process specifically omitted from the CECL standard – as a sign of an effective internal control

---

<sup>6</sup> Per paragraph .09: “...performing procedures...to form a conclusion about whether the estimate is reasonable...and free from bias that results in material misstatement.” Paragraph .30 and .31 then requires specific evaluation of bias.

<sup>7</sup> Per paragraph .18, “the auditor should obtain an understanding of how management analyzed the sensitivity...”

system. Without probability weighting, it is difficult to see how sensitivity testing will address management bias.<sup>8</sup>

A further difficulty in the attempt to eliminate bias is the requirement in paragraph .64 of the proposed amendments to *AS 2301, The Auditor's Responses to the Risks of Material Misstatement* to effectively back-test the estimates. While model back-testing is a standard practice in the banking industry, doing so to ensure the elimination of management bias is not. Backtesting for this purpose appears to effectively require banks to apply macroeconomic "market views" when forecasting the future. Such a requirement appears to contradict the intent of FASB in codifying the forecasts of the future into the CECL estimate. In discussions ABA has conducted with FASB members, banking agency personnel, and auditing firms, backtesting was foreseen to be performed on specific components of the model (for example, a default rate given a specific forecasted macroeconomic assumption) but not the total model (which would include the accuracy of the macroeconomic assumption). It was assumed that the macroeconomic assumption would always contain inaccuracies.

As a whole, the Proposal appears to commingle legitimate auditing concerns relating to management bias of certain fair value estimates with those that are inherent to the CECL estimate. CECL's management-based forecast of the future is, by design, highly subjective and efforts to eliminate its subjectivity and bias will be futile. As a result, ABA recommends that guidance related to reducing management bias not apply to the CECL standard. Guidance on how an auditor assesses the reasonableness of assumptions and their quantitative impacts, including the evaluation of related internal controls, may better serve the auditor of the ALLL.

### **The Final Standard Must Recognize the Work of Industry Regulators**

Banking agency examinations are critical aspects of ALLL and fair value estimation processes for banks. For all practical purposes, we believe that the perspectives of the bank regulatory examiners and auditors are similar and many of the same substantive tests are currently used by both parties, resulting in significant redundancy in the audit process. In many situations, regulatory bank examiners provide guidance to banks on ALLL assumptions and may even qualify as specialists in their review of the ALLL and of other issues regarding financial instruments. With this in mind, we recommend that PCAOB specifically and explicitly address the work of regulatory examiners in assessing the reasonableness of management assumptions.

### **The Final Standard Must Clarify the Definition of "Methods"**

Use of specific valuation methods are common practice within fair value measurements. However, as various methods and models may emphasize different aspects of credit risk, estimating credit losses normally involves a combination of various methods in order to arrive at

---

<sup>8</sup> ABA acknowledges that management bias will still exist within the weighting. However, auditors may believe that reviewing the weighting in a more detailed fashion may enable an auditor to more efficiently evaluate levels of bias.

Public Company Accounting Oversight Board  
Washington, DC  
PCAOB Proposal *Auditing Accounting Estimates, Including Fair Value Measurements*  
August 1, 2017  
Page 5

a final ALLL balance. For example, a credit loss estimate under CECL can involve using a vintage loss rate method, supplemented by analyses of credit rating migration and estimated loan-to-value ratios; both of which may equate to roll rate and probability of default/loss given default “methods”. In practice, quarterly estimation processes can be fluid, with different weight given to the different analyses over time, due to various circumstances. Other further supplemental analyses may provide further adjustments and, in some cases, the baseline estimate may not make up the majority of final amount. Based on the bank, the processes can be different and change by product, subsidiary, geographic region, etc.

Paragraph .11 of the Proposal requires auditors, if the company has changed the method for determining the accounting estimate, to determine the reasons for such change and to evaluate the appropriateness of the change. Under such a requirement, onerous documentation requirements await bankers to support why (or why not) a change in method is appropriate. We do not believe this is the intent of the PCAOB. However, without further clarification, we believe such requirements will be understood. Therefore, the final standard should clarify the difference between methods and analyses, as well as provide guidance on how auditors and bankers can interpret when a change in method occurs in a fluid environment, such as credit risk analysis.

Thank you for your attention to these matters and for considering our views. Please feel free to contact me ([mgullette@aba.com](mailto:mgullette@aba.com); 202-663-4986) if you would like to discuss our views.

Sincerely,

A handwritten signature in cursive script, appearing to read "Michael L. Gullette".

Michael L. Gullette

Public Company Accounting Oversight Board

Washington, DC

PCAOB Proposal *Auditing Accounting Estimates, Including Fair Value Measurements*

August 1, 2017

Page 6

# **APPENDIX**

Public Company Accounting Oversight Board  
Washington, DC  
PCAOB Proposal *Auditing Accounting Estimates, Including Fair Value Measurements*  
August 1, 2017  
Page 7

August 1, 2017

International Auditing and Assurance Standards Board  
Via website submission: [www.iaasb.org](http://www.iaasb.org)

Re: Proposed International Standard on Auditing 540 (Revised) – *Auditing Accounting Estimates and Related Disclosures*

To Whom It May Concern:

The American Bankers Association (ABA<sup>9</sup>) appreciates the opportunity to comment on the Proposed International Standard on Auditing 540 (Revised) – *Auditing Accounting Estimates and Related Disclosures* (the Proposal). Accounting estimates are pervasive throughout bank financial statements, mainly through the allowance for loan and lease losses (ALLL) and the fair value measurement of various financial assets and liabilities. While IAASB standards technically do not apply to U.S. companies, we believe that only in rare occasions will the Auditing Standards Board of the American Institute of CPAs (ASB) approve auditing standards for non-SEC registrants that are significantly different from the IAASB. With the Accounting Standards Updates (ASUs) recently issued by the Financial Accounting Standards Board (FASB) that will change how loan fair values are disclosed and how credit losses are measured<sup>10</sup>, it is easy to see that the Proposal will have a significant impact on audits of many non-SEC registrant banking institutions.

We believe the concurrently outstanding proposal issued by the Public Company Accounting Oversight Board (PCAOB) largely conforms to the spirit of this Proposal, while perhaps providing more prescriptive guidance related to the auditing of management assumptions.<sup>11</sup> As such, we believe that certain aspects of the PCAOB proposal will be used to understand how specific procedures may address certain objectives noted in this Proposal. With those things in mind, we are also attaching our response to the PCAOB proposal, as we believe our comments therein have relevance to this Proposal. The comments included here are specific to this Proposal.

### **Steps to Address Professional Skepticism Will be Ineffective**

The Proposal stresses the need for professional skepticism during audits, emphasizing the need to “stand back” and evaluate whether sufficient appropriate audit evidence (SAAE) has been

---

<sup>9</sup> The American Bankers Association represents banks of all sizes and charters and is the voice for the nation’s \$14 trillion banking industry and its two million employees.

<sup>10</sup> FASB Accounting Standards Updates 2016-1 (*Recognition and Measurement of Financial Assets and Financial Liabilities*) and 2016-13 (*Measurement of Credit Losses on Financial Instruments* – also known as “the CECL Standard”).

<sup>11</sup> See PCAOB Release No. 2017-002 *Proposed Auditing Standard – Auditing Accounting Estimates, Including Fair Value Measurements*.



obtained and that management's decisions relating to recognition, measurement, presentation, and disclosure are in accordance with the accounting framework. While this appears to be a sound step in the overall audit process, we are confused as to how such a process is different from current auditing processes relating to other issues or of the audit process as a whole. If "standing back" merely formalizes what is already performed (and would be expected in any audit), ABA questions the overall benefit of codifying such a process. While ABA generally welcomes professional skepticism in the audit process, without more detail as to how such a process is conducted, it is difficult to see how such guidance will improve audits.

The Proposal also discusses professional skepticism in the light of addressing management bias in accounting estimates. This seems reasonable for fair value estimates, as the estimates made are meant to reflect market-based (and not management-based) assumptions. However, subjectivity and bias are inherent features of the CECL standard (as well as IFRS 9). True, expected credit loss assumptions are meant to be "reasonable and supportable." However, both FASB and U.S. banking regulators acknowledge the expectation that different banks will have different views of the future<sup>12</sup> – "bias" is an integral part of these expected credit loss accounting standards.

There may be the notion that the auditor can detect bias that is considered unreasonable. However, due to the non-linear relationship of economic forecasts to credit losses (for example, there are often no credit losses on collateral-based loans until a specific loan-to-value ratio is reached), small differences in forecasted macroeconomic factors can often have a large impact on the reported financial performance. Unreasonable bias will often be very difficult to detect. By the design of these accounting standards, there will be no practical way to reduce management bias in these estimates.

### **The Auditing Requirements will be Costly**

We believe the upcoming implementation of IFRS 9 and the CECL standard, in light of the requirements in the Proposal relating to obtaining and evaluating sufficient audit evidence over the complexity, judgments, and estimation uncertainty of the ALLL, will require significantly more supporting documentation from the bank and more industry expertise on the part of the auditor. This will be costly to banks, especially at the community bank level, where auditors may need to hire valuation and credit risk specialists to evaluate whether these highly judgmental assumptions are considered "reasonable." In light of the IAASB's observation that, if the auditor decides to perform an independent estimate, its range for the estimate "may be multiples of materiality for the financial statements", it is very difficult to see how the value of such additional audit requirements will exceed the costs. With such estimation uncertainty, users of financial statements will get little comfort from the more stringent documentation requirements, especially in times of economic stress, when significant skepticism over any assumptions of the

---

<sup>12</sup> In addition to different views of the future, banks will have different thresholds as to when (as it applies to IFRS 9) deterioration in credit quality is considered significant, and different judgments as to the quantitative impact of those factors. Banks will even differ on assumed borrower behavior and specific factors that are considered when evaluating credit risk.



Public Company Accounting Oversight Board

Washington, DC

PCAOB Proposal *Auditing Accounting Estimates, Including Fair Value Measurements*

August 1, 2017

Page 9

future would be expected. This is not necessarily a defect in the proposed auditing standard, but is the nature of the related accounting standards.

Thank you for your attention to these matters and for considering our views. Please feel free to contact me ([mgullette@aba.com](mailto:mgullette@aba.com); 202-663-4986) if you would like to discuss our views.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael L. Gullette". The signature is fluid and cursive, with the first name "Michael" and last name "Gullette" being the most prominent parts.

Michael L. Gullette



Baker Tilly Virchow Krause, LLP  
1650 Market St., Ste. 4500  
Philadelphia, PA 19103-7341  
tel 215 972 0701  
tel 800 267 9405  
fax 888 264 9617  
bakertilly.com

August 28, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Re: PCAOB Rulemaking Docket Matter No. 043: *Proposed Auditing Standard for Auditing Accounting Estimates, Including Fair Value Measurements***

**PCAOB Rulemaking Docket Matter No. 044: *Proposed Amendments to Auditing Standards for Auditor's Use of the Work of Specialists***

Dear Madam Secretary:

We are pleased to provide comment to the Public Company Accounting Oversight Board (PCAOB or Board) and the staff of the Office of the Chief Auditor (the Staff) regarding the recently issued proposed auditing standard related to auditing estimates, including fair value measurements (Release No. 2017-002), and the related proposed amendments to auditing standards related to the auditor's use of the work of specialists (Release No. 2017-003). As noted in each of these proposals, the standards are closely related and auditors will need to consider both in planning and executing audits where these issues arise. As such we believe it is most efficient for us to comment with one letter addressing our observations in both proposals.

We commend the Staff's efforts in these two areas and believe the final adoption of these standards should improve audit quality. Providing enhanced clarity to the public company auditors enables them to apply their judgment in a reasonable and consistent manner, based on risk assessments and clear guidance. We also are appreciative of the deliberative approach that the Staff undertook in drafting these two standards. The opportunities afforded to stakeholders in the financial reporting process to provide feedback was unprecedented and we believe this model should become the norm for any future standard setting.

Baker Tilly Virchow Krause, LLP (Baker Tilly), is a large regional accounting firm operating primarily in the Midwest and Mid-Atlantic regions. We have approximately 2,700 total staff and 300 partners. We have fewer than 100 issuer audit clients and are a triennially inspected firm. Our issuer practice consists primarily of smaller, non-accelerated filers in various industries, including financial institutions as well as a substantial complement of 11-K audits. Although we are a top 15 ranked firm, our organization is substantially different from a "big four" firm.

Our comments will be in the form of general and specific observations rather than answering the questions posed in the proposals.

### **Proposed Auditing Standard – *Auditing Accounting Estimates, Including Fair Value Measurements***

We agree with the Staff's approach in simplifying the current AS structure, by replacing AS 2501, 2502, and 2503 with one new auditing standard addressing the issues. The existence of three related standards made it difficult for auditors to navigate among the standards to be certain that all the requirements were met. We also appreciate that this proposal finally provides guidance for how the use of pricing services articulates within the two standards. For a smaller firm with a larger financial institution practice, this guidance is very important. Specific comments:

- Appendix 1: Proposed Auditing Standard AS 2501: *Auditing Accounting Estimates, Including Fair Value Measurements*
  - 09: We believe the phrase "free from bias," to be overly broad and appears to be absolutism. Audits are designed to determine whether the financial statements as whole are free from material misstatement, as noted in paragraph .24 of AS 2810. This phrase seems to elevate the concept into a particular measurement(s) in the financial statements. We recommend clarifying this is meant solely in the context of the financial statements as a whole.
  - 10 b: We wonder if this is too narrow a requirement. We agree that the auditor should consider industry practices, when available. But, there may be circumstances where use of another approach may be more appropriate for the issuer. In those cases the auditor should document management's rationale for the departure and consider as part of the risk assessment related to the estimate.
  - 30 b, c: Each of these sub-paragraphs could be interpreted as a presumption that bias always exists in accounting estimates. We recommend inserting the word "potential" before each reference to bias in these sub-paragraphs. We believe these changes are consistent with other PCAOB auditing standards, including AS 1015.09 and the proposed amendment to AS 1015.11. We believe this change is also consistent with the footnote references to AS 2810.24 through .27. Specifically:
    - Sub-paragraph .30b states "...including bias in management's judgments..." with a footnote reference to AS 2810.24 – .26. AS 2810.24 references "potential bias" in the context of the "financial statements as a whole." Similarly, the description of bias in AS 2810.26 is preceded by the word "if."
    - Sub-paragraph .30c states "Evaluating bias in account estimates" with a footnote reference to AS 2810.27. However, AS 2810 includes the words "potential" and "possible" in describing the auditor's evaluation of the presence of bias.

While we have no disagreement with the performance requirements of AS 2810, we recommend the proposed standard in AS 2501 uses consistent language and does not inadvertently extend the auditor's responsibility to determining whether actual bias exists. Determining actual bias requires insight into the intentions of management, which is beyond the scope of auditing. While auditors can assess the appearance of or potential for bias, definitively determining whether bias actually exists could require a forensic examination or behavioral analysis that is beyond the scope of an audit. We believe AS 1015.09 appropriately describes role of the auditor in exercising professional skepticism in an audit.

- Appendix 2: Proposed Amendments to AS 1105, *Audit Evidence*, Appendix A—*Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results*
  - A2 d: We object to this requirement as it appears to imply that audits conducted in accordance with US GAAS or IAASB audit standards are somehow inferior to PCAOB audits. For many investees this is irrelevant.
  - A4-.A5: Some of the requirements in these paragraphs imply an ability by the investor to obtain direct access to the investee auditor or in some cases the actual books and records of the investee. This in turn implies a level of control being exercised by the investor that may not be the case. We urge the Board to reconsider these requirements.

### **Proposed Amendments to Auditing Standards for Auditor's Use of the Work of Specialists**

In our previous letter to the Staff commenting on the related Staff Consultation Paper (Comment Letter No. 11), we stated the following, which we continue to believe should be the cornerstone of any new standard addressing the use of specialists:

- Baker Tilly welcomes the Staff Consultation Paper (CP) on AU 336. We agree that the use of specialists has become more prevalent as a result of the need for more complex estimates and fair value measurements in preparing financial statements. We encourage the Staff to carefully consider enhancements to AU 336 but do not agree with rescinding the standard. AU 336 and the principles therein have been a cornerstone of the auditing profession for many years, in particular, the concept contained in paragraph .06 *"The auditor's education and experience enable him or her to be knowledgeable about business matters in general, but the auditor is not expected to have the expertise of a person trained for or qualified to engage in the practice of another profession or occupation."* When applied properly, AU 336 enables smaller auditing firms to conduct high quality audits that may include complex measurements and estimates. Therefore any revisions to AU 336 should be made in a way that is operational, sustainable, and scalable for smaller auditing firms. We believe retaining this flexibility in the auditing standard should be an important public policy consideration when the Staff is developing any potential new standard.

Specific comments:

- Proposed Amendments to AS 1105, *Audit Evidence*
  - 08: We strongly agree with the statement in the second bullet about the impact of management's controls on the reliability of evidence generated internally and with the aid of a company's specialist. We recommend that this concept should be directly linked into the risk assessment standards when considering risk related to estimates. A cross reference may be helpful.
  - Appendix B – *Using the Work of a Company's Specialist as Audit Evidence*
    - B4: While we understand this requirement is addressing the objectivity of the company specialist, we believe there are practical limitations as to what exactly an auditor can do beyond inquiry and maintaining an awareness of observing potential indicators as to the lack of objectivity. We also believe that this might be an area where representations by management may be useful and should be required.
    - B5: We also believe there is a practical limit on obtaining evidence related to the company-engaged specialist's competence and objectivity regardless of the importance of the estimate. We suggest that if this is the Board's intent, then some practical guidance on what the auditor could actually do to increase scrutiny in this area should be provided in the proposed auditing standard.

Office of the Secretary  
Public Company Accounting Oversight Board  
August 28, 2017  
Page 4

- B6-.B8, Note: We direct the Staff to our comment above. The performance requirements in these paragraphs, in particular the Note to .B6, seem to imply that an auditor may be required to engage or employ a specialist in many cases. This will inevitably lead to a crowding out of smaller firms and potentially lead to a shortage of independent specialists in general. We are not satisfied that there are sufficient numbers of competent specialists in the population to make this requirement operational. We maintain that properly applying the historical approach to company's specialists can and will continue to provide reliable audit evidence. We believe the correct approach is to require the auditor to consider the need for an employed or engaged specialists in situations where management's specialists do not have the required knowledge, skill, and ability or are employing methods or assumptions that are not typical for a particular estimate. In other words if management's specialist is not competent, then auditors may need to consider use of an independent specialist. We believe the Note to .B10 may be the appropriate driver.
- Proposed Amendments to AS 1201, *Supervision of the Audit Engagement*, Appendix C – *Supervision of the Work of Auditor-Employed Specialists*
  - C3-.C4: We believe that a footnote here indicating that an audit firm's system of quality control should be sufficient to ensure compliance with these requirements. That is, there is no need for additional documentation if the specialists are employed by the firm and subject to the quality control system, namely the personnel management component described in QC Section 20 paragraphs .11 through .13.
- Proposed Amendments to AS 1210, *Using the Work of an Auditor-Engaged Specialist*
  - 03: The text of this paragraph is similar to the current text of AS 1210.08, but the proposed wording places the performance responsibility for this assessment on "[t]he engagement partner and, as applicable, other engagement team members..." AS 1210.08 simply refers to "[t]he auditor." We suggest a footnote or other clarification to enable firms to evaluate centrally certain third-party specialists as part of the firm's system of quality control. While some engagement-level analysis of the specialist's knowledge, skill, and ability may be necessary, in many cases, certain specialists are used on a recurring basis by auditing firms and the firm – rather than each individual audit engagement team – may be better positioned to perform this assessment..
  - 04: We believe that there are practical limits on how much an auditor can do with respect to this requirement, beyond obtaining a representation from the specialist as to the matters noted. If the Board's intention is for the auditor to do more, then adding more guidance would be helpful.

That concludes our comments on the two proposals. We appreciate the opportunity afforded us to comment on the proposed auditing standards. We are available for further direct discussion with the Staff if that would be useful to the process.

Sincerely yours,



Baker Tilly Virchow Krause, LLP



Tel: 312-856-9100  
 Fax: 312-856-1379  
 www.bdo.com

330 North Wabash, Suite 3200  
 Chicago, IL 60611

August 30, 2017

Via E-mail: comments@pcaobus.org

Office of the Secretary  
 Public Company Accounting Oversight Board  
 1666 K Street, NW  
 Washington, DC 20006-2803

**Re: PCAOB Rulemaking Docket Matter No. 043: *Proposed Auditing Standard - Auditing Accounting Estimates, Including Fair Value Measurements, and Proposed Amendments to PCAOB Auditing Standards***

Dear Office of the Secretary:

BDO USA, LLP appreciates the opportunity to respond to the request for comments on the Public Company Accounting Oversight Board's (the PCAOB or the Board) *Proposed Auditing Standard - Auditing Accounting Estimates, Including Fair Value Measurements, and Proposed Amendments to PCAOB Auditing Standards* (the Proposal or Proposed Standard). Consistent with the views expressed in our comment letter dated November 3, 2014 on the PCAOB Staff Consultation Paper: *Auditing Accounting Estimates and Fair Value Measurements*, we support the development of a single standard that is aligned with the PCAOB's risk assessment standards and the addition of incremental guidance relating to third-party pricing services.

While we recognize that the PCAOB engaged in outreach to explore the views of market participants and others, and considered the International Auditing and Assurance Standards Board's International Standard on Auditing (ISA) 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* and the corresponding AICPA auditing standard, AU-C Section 540, we note that much of the application guidance from these standards, that is instrumental to ensuring consistent application, is missing from the Proposed Standard. We believe the inclusion of such application guidance is necessary for a proper understanding to apply the requirements and would, accordingly, enhance audit quality. In particular, we believe useful guidance from AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AS 2503), may have been lost in the process of merging the three separate standards on auditing accounting estimates and fair value measurements into a single standard. Discussion of the more significant areas where we believe additional guidance would be appropriate to include within the Proposed Standard is provided in the discussion of our comments below.

Our comments are focused on the following areas of significance within the Proposal:

1. Objective of the Proposed Standard
2. AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*
3. Responding to Risks of Material Misstatement
4. Third-Party Pricing Information

Office of the Secretary  
Public Company Accounting Oversight Board  
Page 2 of 6

5. Valuation of Investments Based on Investee Financial Condition or Operating Results
6. Estimation Uncertainty
7. Other Matters

#### **1. Objective of the Proposed Standard**

The objective paragraph of the Proposed Standard explains that the auditor is to ‘obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework and are free from bias that results in a material misstatement.’ We believe the current structure of the objective is misleading. The inclusion of the phrase ‘and are free from bias’ within the objective may inappropriately give the impression that while the auditor is obtaining sufficient appropriate evidence to determine whether accounting estimates are reasonable they are also determining that the estimate is free from bias. To avoid this implication we suggest deleting the phrase ‘and free from bias’ from the objective and including a more fulsome discussion of the auditor’s consideration of whether indicators of possible management bias exist within the section of the standard that discusses the auditor’s evaluation of the results of audit procedures.

#### **2. AS 2503, Auditing Derivative Instruments, Hedging Activities, and Investments in Securities**

While we support replacing the three existing standards that address auditing accounting estimates and fair value measurements into one single, updated standard that strengthens auditing practices and applies a more uniform risk based approach – we believe that in the process some useful guidance has been lost, which we believe is helpful to practitioners in auditing estimates with higher estimation uncertainty. For example, we note that the discussion in AS 2503 relating to the inherent risk assessment is missing. We believe this discussion, while not a requirement to perform any particular procedures, would provide useful information for practitioners in the application of the requirements of the proposed standard. For this reason, we believe the addition of the guidance in AS 2503, paragraph 8, that provides examples of considerations that might affect the auditor’s assessment of inherent risk for assertions about a derivative or security would promote a more effective audit and provide for consistent application of the requirements. Those examples include; management’s objectives; complexity of the features of the derivative or security; whether the transaction that gave rise to the derivative or security involved the exchange of cash; the entity’s experience with the derivative or security; whether the derivative is a freestanding or embedded feature of an agreement; and whether external factors affect the assertion.

Moreover, we note that paragraphs 10 and 11 of AS 2503, which provide guidance relating to obtaining an understanding of internal control to plan the audit, have not been carried forward to the new standard. Paragraph 10 explains that controls for an entity with extensive derivatives transactions may include:

- Monitoring by a control staff that is fully independent of derivative activities

Office of the Secretary  
Public Company Accounting Oversight Board  
Page 3 of 6

- Obtaining approval, prior to exceeding limits, from members of senior management, who are independent of derivative activities
- Senior management address limit excesses and divergences from approved strategies
- Transmittal of derivatives positions to risk measurement systems are accurate
- Reconciliations are performed to ensure data integrity
- Constraints on derivative activities are defined and identified excesses justified
- Performance of reviews of identified controls are performed regularly
- Review of limits in the context of changes in strategy, risk tolerance and market conditions

Paragraph 11 further explains that the extent of understanding of internal control over derivatives and securities depends on how much information the auditor needs to identify types of potential misstatements, consider factors that affect the risk of material misstatement, design tests of controls, when applicable, and design substantive tests. Additionally, this paragraph states that the understanding obtained may include controls over derivative and security transactions from initiation to inclusion in the financial statements.

We believe the inclusion of such guidance would enhance the clarity of the purpose of the required procedures.

We also note that guidance relating to the use of a service organization whose services are part of the entity's information system, as it relates to the entity's information system for derivatives and securities is missing. We believe such guidance should be retained.

### **3. Responding to Risks of Material Misstatement**

#### ***Substantive Procedures Performed Relating to Significant Accounts and Disclosures***

Paragraphs .05 - .07 of the Proposed Standard explain that the auditor is required to perform substantive procedures to accounting estimates in significant accounts and disclosures, and that as the assessed risk of material misstatement increases, the evidence from substantive procedures that the auditor should obtain also increases. However, we believe it is important to recognize that the 'amount' of evidence may not necessarily increase, but the persuasiveness and sufficiency of the evidence should increase. Additionally, we believe the proposed standard is unclear how the nature, timing, and extent of procedures might vary based on the significance of risk, and therefore request clarification within the Proposed Standard.

#### ***Identification of Significant Assumptions***

Paragraph 15 of the Proposed Standard provides a list of factors that are relevant to identifying significant assumptions. Items a. through d. address specific characteristics about the assumption. However, item e. is broader and encompasses assumptions that 'otherwise are related to an identified and assessed risk of material misstatement of the estimate.' One interpretation of this overarching factor might result in all assumptions underlying an estimate



Office of the Secretary  
Public Company Accounting Oversight Board  
Page 4 of 6

being considered significant. We do not believe this is the intention of the requirement and, as such, suggest including explanatory guidance regarding the interaction of the factors in identifying significant assumptions within the standard. Furthermore, we do not believe the auditor should be required to identify an assumption as significant as a result of management's identification of the assumption as significant in the recognition or measurement of the accounting estimate. We believe such identification should be based on the auditor's professional judgment, considering the factors provided in paragraph 15, independent of management's assessment.

#### **4. Third-Party Pricing Information**

Appendix A to the Proposed Standard sets out guidance for the auditor when using pricing information from third parties as audit evidence and requires the auditor to evaluate the relevance and reliability of the pricing information. Paragraph .A4 explains that the 'reliability of audit evidence depends on the nature and source of the evidence and the circumstances under which it is obtained.' Generally, third-party pricing services provide independent pricing information that is free from influence of users of the service and, as such, provides audit evidence that results in higher reliability. For this reason we believe, when a financial instrument has lower estimation uncertainty, the auditor should be permitted to test management's price by obtaining a price from a different pricing service than management.

Additionally, we note that paragraph .A5 explains that when fair values are based on transactions of similar financial instruments, the auditor should understand how those transactions are identified and considered comparable to the financial instrument being valued as part of the procedures performed to determine whether the pricing information provides sufficient appropriate evidence. However, this information may not always be available from the third-party pricing service due to the proprietary nature of the valuation, and for this reason we suggest revising the requirement to allow the auditor to look to the asset class and other relevant characteristics of the financial instrument.

#### **5. Valuation of Investments Based on Investee Financial Condition or Operating Results**

We support providing additional guidance describing the auditor's responsibilities for obtaining sufficient appropriate audit evidence when the valuation of an investment selected for testing is based on the investee's financial condition, as we believe this will enhance the consistent application of audit procedures. However, we note that within Appendix A to AS 1105, there is no discussion regarding the auditor's responsibility to obtain an understanding of management's processes and controls over the recording of amounts related to such an investment. While we recognize that AS 2110, *Identifying and Assessing Risks of Material Misstatement*, addresses the auditor's assessment of risk overall, we believe it would be helpful to specifically make reference to understanding management's procedures and controls in this circumstance to emphasize the importance of understanding management's valuation process as part of the auditor's assessment of the risk of material misstatement.

Office of the Secretary  
Public Company Accounting Oversight Board  
Page 5 of 6

Paragraph .A3b of the Proposed Appendix to AS 1105 addresses subsequent events and transactions of the investee occurring after the date of the investee's financial statements but before the date of the company's auditor's report. It requires the auditor to 'read available interim financial statements of the investee and other available information and make inquiries of the investee to identify subsequent events and transactions that could be material to the company's financial statements.' We do not believe that this requirement is necessary given that subsequent event procedures are already set out in AS 2801, *Subsequent Events*. Additionally, we suggest replacing the proposed requirement to inquire of the investee with application guidance that explains that such inquiry may be appropriate in certain circumstances in response to the auditor's assessment of the risk of material misstatement.

We also note that the Proposed Appendix to AS 1105, paragraph .A4b, would require the auditor to 'obtain information about the procedures the investee's auditor performed and the results thereof or review the audit documentation of the investee's auditor.' Based on our experience, company management may not always have direct access to investee management to be able to arrange for the company auditor to perform the proposed procedures and in some cases, the company may not have the authority to obtain such information. Accordingly, we recommend revising paragraph .A4b to recognize such practical challenges.

## 6. Estimation Uncertainty

When developing an independent expectation as a range, the Proposed Standard (AS 2501, paragraph 25) requires the auditor to determine that the range is appropriate for identifying a misstatement of the accounting estimate and is supported by sufficient appropriate audit evidence. However, we suggest recognizing within the Proposed Standard that the degree of estimation uncertainty associated with an accounting estimate, particularly in certain industries, may inherently result in a wider range of reasonable estimates and that the auditor may conclude, after performing sufficient appropriate procedures, that management's accounting estimate is reasonable. Such an approach would be consistent with the International Auditing and Assurance Standards Board, Proposed International Standard on Auditing 540 (Revised), *Auditing Accounting Estimates and Related Disclosures*, paragraph A134, which includes the following guidance:

In certain circumstances, the auditor's range for an accounting estimate may be multiples of materiality for the financial statements as a whole, particularly when materiality is based on operating results (for example, pre-tax income) and this measure is relatively small in relation to assets or other balance sheet measures. In these circumstances, the auditor's evaluation of the reasonableness of the disclosures about estimation uncertainty becomes increasingly important.



Office of the Secretary  
Public Company Accounting Oversight Board  
Page 6 of 6

## 7. Other Matters

### *Applicability*

We support application of the Proposed Standard and amendments to emerging growth companies (EGCs) and brokers and dealers, since we believe the proposed guidance would be beneficial to users of financial information of these entities.

### *Effective Date*

To ensure audit firms have the necessary time to update firm methodologies, develop and implement training, and ensure effective quality control process to support implementation, similar to our suggestion in our comment letter on Rulemaking Docket Matter No. 044, we suggest providing for an effective date for audits of fiscal years beginning two years after the Securities and Exchange Commission approves the final standard.

\* \* \* \*

We appreciate your consideration of our comments and suggestions and would be pleased to discuss them with you at your convenience. Please direct any questions to Christopher Tower, National Managing Partner - Audit Quality and Professional Practice at 714-668-7320 ([ctower@bdo.com](mailto:ctower@bdo.com)), Phillip Austin, National Managing Partner - Auditing at 317-730-1273 ([paustin@bdo.com](mailto:paustin@bdo.com)), or Patricia Bottomly, Partner - National Assurance at 310-557-8538 ([pbottomly@bdo.com](mailto:pbottomly@bdo.com)).

Very truly yours,

/s/ BDO USA, LLP

BDO USA, LLP

### Comment on PCAOB Rulemaking Docket Matter No. 043

I respectfully submit my views for the Board’s consideration related to its proposed standard on auditing estimates, including fair value measurements. The views expressed herein are my own and do not necessarily represent the views of my firm.

Just as the Accounting Standards Codification (ASC) differentiates between various accounting estimates and the concept of fair value,<sup>1</sup> I posit that the standards for the auditing of fair value measurements should be differentiated from those of other accounting estimates. The Board itself differentiates fair value estimates as a subset of accounting estimates in the proposed standard.<sup>2</sup> Despite this differentiation, the Board seeks to extend the required audit procedures for accounting estimates generally to be consistent with those required for fair value measurements.<sup>3</sup>

The concept of fair value is no doubt an estimate. Notably, fair value measures classified in “level III” of the fair value hierarchy defined by ASC 820 involve various subjective inputs and assumptions that do not have observable market sources. However, the goal of a fair value estimate is inherently and significantly different than that of other accounting estimates. Fair value intends to show a price that could be received to sell an asset in an orderly transaction between willing market participants.<sup>4</sup> Other accounting estimates (e.g., the allowance for loan and lease loss (“Allowance”)) do not purport to represent such a precise concept but instead represent management’s *best estimate* of probable events that may or may not occur in the future.

In illustrating this point, I take the Allowance accounting estimate as an example. The Allowance estimate is inherently a loss contingency. Such contingencies should be recognized when 1) it is probable that an asset has been impaired or a liability incurred and 2) when such a loss is *reasonably estimable*.<sup>5</sup> The definition of a contingency provided in the ASC glossary is as follows:

*An existing condition, situation, or set of circumstances involving uncertainty as to possible gain (gain contingency) or loss (loss contingency) to an entity that will ultimately be resolved when one or more future events occur or fail to occur.*<sup>6</sup> (Emphasis added)

By the nature of its definition, loss contingencies include uncertainty and concern events that the definition itself acknowledges may or may not ever occur. This is a far cry from the estimate of fair value, which involves determining prices that could be received *today* to sell an asset or transfer a liability. Under current accounting and regulatory guidance, financial institutions are instructed to “develop and document a systematic methodology”<sup>7</sup> and to apply their Allowance methodologies in a “systematic and

---

<sup>1</sup> See, for example, the exceptions to the scope of ASC 820 (ASC 820-10-15), which include among other items, accounting estimates for asset retirement obligations and share-based payments.

<sup>2</sup> PCAOB Proposed Auditing Standard, *Auditing Estimates, Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards*

<sup>3</sup> Ibid

<sup>4</sup> ASC 820-10-20

<sup>5</sup> ASC 450-20 (emphasis added)

<sup>6</sup> ASC 450-20-20

<sup>7</sup> SAB 102

consistently-applied<sup>8</sup> manner. The existing guidance given to companies in estimating the Allowance focuses on developing a systematic methodology that complies with the “incurred loss” methodology enumerated in current GAAP<sup>9</sup> and applying that methodology consistently period-over-period. Current guidance does not call on companies to develop intricate models supported by advanced mathematics and statistics, and many smaller public financial institutions worry that they will be held to such standards under the recently issued Current Expected Credit Loss<sup>10</sup> accounting model.<sup>11</sup> It is clear to me that the Board has begun the process of realizing the fears and concerns of these executives.

Current auditing standards require auditors to “assess the reasonableness of the accounting estimate”<sup>12</sup> by focusing on the appropriateness of the Company’s methodology used in developing the estimates, the completeness of the information and factors considered by management in developing the key assumptions that factor into the estimate, and considering whether the various assumptions are contradicted by other data or information (including information used in the development of other accounting estimates).<sup>13</sup> AS 2501 provides various procedures an auditor may *consider* using to substantively test accounting estimates. However, the standard allows for auditor judgment in tailoring the specific procedures performed to the facts and circumstances of the estimate and the issuer’s processes for developing the estimate.

Under the proposed standard, auditors will be required to perform procedures for all estimates that were previously performed only for estimates of fair value. As discussed previously, accounting estimates generally and fair value measurements have distinct characteristics. Requiring the performance of these new procedures for all accounting estimates inherently implies that the estimate is developed through use of quantitative models that employ mathematical and statistical techniques that produce precise calculations, fine-tuned through the input of various economic data. The introduction of this and similar standards will have the effect of introducing new requirements to financial statement preparers. Such indirect regulation has been acknowledged by Board members.<sup>14</sup> Do these elegant mathematical models offer better results than the employment of a systematic and rational approach informed by historical events, as qualitatively and *judgmentally* adjusted for changes in current events? If there is one thing we know about estimates, it is that they are wrong. The question we ask as auditors should not be: “is the estimate accurate to the penny.” Rather, the questions auditors ask should be regarding the appropriateness of the methodology, its consistent application by management, and whether our search for potentially contradictory information yielded any indication of bias or other evidence that the estimate was not *reasonably* stated. We give ourselves too much credit when we try to say that we can audit the

---

<sup>8</sup> Ibid

<sup>9</sup> ASC 310-10

<sup>10</sup> ASU 2016-13

<sup>11</sup> <https://www.wsj.com/articles/banks-want-treasury-secretary-mnuchin-to-intervene-in-fight-over-new-loan-rule-1494265009>

<sup>12</sup> AS 2501

<sup>13</sup> Ibid.

<sup>14</sup> Speech given by PCAOB member, Jay Hanson, September 15, 2016, San Francisco, CA. “[T]he PCAOB’s actions do impact financial statement preparers indirectly. For example, our inspections often highlight audit deficiencies that can only be addressed if the auditor obtains more information, or different information, from their clients. In some cases, this requires clients to change aspects of their financial reporting processes.”

Allowance in the same way and with the same degree of precision that we can audit the valuation of a corporate bond.

There is of course something to be said for introducing an appropriate amount of rigor into the estimation process. Our job as auditors is to challenge management's estimation methods and assumptions. However, to expect the same level of rigor in developing accounting estimates from both the largest and the smallest of the nation's public companies is unreasonable. The largest companies often have larger staffs of people designated to one estimation area than smaller issuers employ in their entire company. It is no wonder the number of public companies in the United States continues to dwindle.<sup>15</sup> I fear that recent standard setting activity by the Board (e.g., the proposed standard and the 2015 related parties standard) has favored too much a "one size fits all" audit approach. Such an approach treats all issuers as equal and does not provide for the allowance of auditor judgement in tailoring the audit procedures deemed necessary in light of the issuer-specific risk of material misstatement. While I am wholeheartedly in favor of the improvements made to perform procedures to identify management bias, I respectfully disagree about the need to consolidate the required audit procedures for fair value measurements into the required procedures for accounting estimates more broadly.

Respectfully submitted,

/s/ Brad Bowen, CPA

Audit Senior at a large public accounting firm

---

<sup>15</sup> Center for Research in Security Prices at the University of Chicago Booth School of Business: For instance, the number of US public companies declined by more than half since 1997



1710 Gilbreth Road  
 Burlingame, CA 94010  
 (800) 922-5272  
 calcpa.org  
 calcpa@calcpa.org

August 30, 2017

Office of the Secretary  
 PCAOB  
 1666 K Street, NW  
 Washington, D.C. 20006-2803

PCAOB Release No. 2017-002  
 Proposed Amendments to Auditing Standards  
 For Auditing Accounting Estimates, Including Fair Value Measurements

The California Society of CPA's ("CalCPA") Accounting Principles and Assurance Services Committee (the "Committee") is the senior technical committee of CalCPA. CalCPA has approximately 43,500 members. The Committee consists of 55 members, of whom 45 percent are from local or regional firms, 32 percent are from large multi-office CPA firms, 12 percent are sole practitioners in public practice, 6 percent are in academia and 5 percent are in international firms. Members of the Committee are with CPA firms serving a large number of public and nonpublic business entities, as well as many non-business entities such as not-for-profits, pension plans and governmental organizations.

The Committee has provided responses to the specific questions set forth in the Release below.

**Question:**

- 1. Does the discussion of the reasons to improve auditing standards sufficiently describe the nature of concerns related to auditing accounting estimates that the Board should address? Are there additional concerns that the Board should seek to address?**

The Committee believes the discussion of the reasons to improve auditing standards sufficiently describes the nature of the concerns relating to auditing accounting estimates. The Committee is unaware of other concerns requiring further attention and generally supports a single-standard approach.

- 2. Does the information presented above reflect current audit practice? Are there additional aspects of current practice of both larger and smaller audit firms that are relevant to the need for standard setting in this area?**

The Committee generally recognizes that practices described within the exposure draft. While the Committee also recognizes the results of PCAOB inspections and enforcement actions, we do not believe such actions are necessarily representative of the majority of audits of significant estimates. The Committee further notes the while diversity in audit approaches may exist with regards to auditing the fair value of certain financial instruments



and impairment testing given firm size and resources, we do not believe audit methodologies are significantly disparate when gathering audit evidence for other significant estimates.

- 3. Are there additional changes needed to improve the quality of audit work related to accounting estimates that the Board should include in its proposal?**

The Committee has none to recommend.

- 4. Are there any other areas relating to auditing accounting estimates that the Board should address in the proposed standard (e.g., are there related areas of practice for which additional or different requirements are needed, such as the use of data analytics)?**

The Committee has none to recommend.

- 5. Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition or impairment of financial instruments, that the proposed standard does not adequately address?**

No. The Committee believes that while changes to revenue recognition, impairment and other standards may create accounting challenges, the proposed audit standard is sufficiently responsive to relevant risks of material misstatements. While accounting standards and the relevant underlying transactions may evolve, the Committee believes that audit standards should be sufficiently broad to allow an auditor to apply such standards across accounting frameworks and transactions. We believe it futile to try to update basic audit standards for each new accounting standard or underlying transaction.

- 6. Are there additional academic studies or data the Board should consider? The Board is particularly interested in studies or data that could be used to further assess current practice.**

The Committee has none to recommend.

- 7. The Board requests comment generally on the analysis of the need for the proposal. The Board is interested in any alternative economic approaches to analyzing the issues presented in this release, including references to relevant data, studies, or academic literature.**

The Committee recognizes the reasons noted to improve existing standards and the underlying analyses noted within the proposal. We have no additional analysis to recommend for consideration.

- 8. The Board requests comment generally on the potential benefits to investors and the public. Are there additional benefits the Board should consider?**



The Committee has none to recommend.

**9. The Board requests comment generally on the potential costs to auditors and companies they audit. Are there additional costs the Board should consider?**

The Committee recognizes the incremental fixed and variable costs to auditors expressed by the PCAOB in connection with implementing and applying the proposed standards. The Committee also recognizes that these costs may be significant for smaller firms lacking resources and access to industry/market information. However, it is the Committee's expectation that many smaller firms, applying AICPA Audit Standards and International Auditing Standards on other engagements will have developed audit procedures responses to many of the requirements proposed by the PCAOB. This should result in a reduction of costs.

**10. Are there additional academic studies or data the Board should consider? The Board is particularly interested in studies or data that could be used to assess potential benefits and costs.**

The Committee has none to recommend.

**11. The Board requests comment generally on the potential unintended consequences of the proposal. Are the responses to the potential unintended consequences discussed in the release adequate? Are there additional potential unintended consequences that the Board should consider? If so, what responses should be considered?**

The Committee generally does not believe that the unintended consequences specifically contemplated by the Board outweigh the benefits of the proposed standards. The responses observed by the PCAOB are generally adequate.

**12. The Board requests comment generally on the analysis of the impacts of the proposal on EGCs. Are there reasons why the proposal should not apply to audits of EGCs? What impact would the proposal likely have on EGCs, and how would this affect efficiency, competition, and capital formation?**

The Committee generally supports the reorganization of the three current PCAOB standards into a single standard. We therefore do not support retaining the existing three standards at issue for EGCs. We agree that such a distinction within standards runs counter to the proposal's objective of improving audit practice by setting forth a more uniform, risk based approach to auditing accounting estimates. Furthermore, we believe it would be improperly inconsistent to require auditors to adhere to different PCAOB standards purporting to address similar risks of material misstatement.

Regarding the potential impact the proposal may have on EGCs, the Company recognizes that increased audit costs identified by the PCAOB within the proposal as well as the related concerns above could translate into a greater audit fees and cost of doing business.

**13. Are there additional economic considerations associated with this proposal that the Board should consider? If so, what are those considerations?**

The Committee has none to recommend.

**14. Are there any factors specifically related to audits of brokers and dealers that may affect the application of the proposal to those audits?**

The Committee has none to recommend.

**15. How much time following SEC approval would accounting firms need to implement the proposed requirements?**

While the largest audit firms may have developed audit methodologies that include documentation of the evaluations contemplated within the proposal, we believe many smaller and mid-sized firms will be required to expand their existing audit methodologies, guidance and training programs. Accordingly, the Committee believes the Board should provide accounting firms at least one year following the end of the calendar year in which the SEC's approves the standard to facilitate adjustments to audit methodologies, the development of requisite training materials and annual training cycle.

**16. Would the effective date as described above provide challenges for auditors? If so, what are those challenges, and how should they be addressed?**

Consistent with our response to Question 15, the Committee believes compliance with an adopted standard and amendments should be required for audits of fiscal years beginning on or after December 15<sup>th</sup> of the year following the SEC's approval. For example, if the SEC approved the standard on September 30, 2018, the standard and amendments should be effective for audits of fiscal years beginning on or after December 15, 2019.

**17. Are the scope and objective of the proposed standard clear?**

The Committee believes the proposed scope and objective is clear.

**18. Are there challenges in tailoring the scalability of the auditor's response to identified risks of material misstatement as described in the proposal? If so, what are they and how can they be addressed?**

The Committee does not believe there will be significant challenges in tailoring the scalability of the auditor's response to identified risks of material misstatements described in the proposal.

**19. Should the proposed standard limit the auditor's selection of an approach and, if so, under what circumstances?**

The Committee believes it is inappropriate to limit the auditor's selection of a particular audit approach. The selection of specific audit approach is usually driven by the specific entity circumstances and the experience of the auditor. However, we note that the proposed audit standard appropriately requires that an auditor, who obtains audit evidence about events or transactions that occur after the measurement date, evaluate whether the evidence supports or contradicts a company's estimate.

**20. Are the proposed requirements for evaluating the company's method used to develop accounting estimates clear? Are there other matters that are important to evaluating a method that should be included in the proposed requirements?**

The Committee believes the proposed requirements for evaluating whether a company's method(s) used to develop accounting estimates are clear.

**21. Are there any further requirements regarding testing internal data or evaluating the relevance and reliability of external data that the Board should consider?**

The Committee has none to recommend.

**22. Are the proposed requirements to evaluate whether data was appropriately used by the company clear? Are there other criteria the auditor should assess to make this evaluation? If so, what are they?**

The Committee believes the proposed requirements for evaluating whether data was appropriately used by the company are clear. The Committee has no other criteria to recommend.

**23. Are the proposed requirements for the auditor to identify significant assumptions and to evaluate whether the company has a reasonable basis for significant assumptions used clear? Do those requirements pose any practical difficulties and, if so, how could the proposed standard be revised to address those difficulties?**

Ultimately, the Committee believes that the identification of which assumptions used by management are significant assumptions should be done by management and tested by the auditor. While the Committee believes this understanding should be clarified in the standards, we did not identify any practical difficulties in applying the proposed standard.

The Committee also believes the proposed requirements for evaluating whether the company has a reasonable basis for significant assumptions used is clear. However, the Committee believes that establishing consistency with International Standards on Auditing is important. In this regard, the Committee recommends that the PCAOB use language similar to that contained in ISA 540. Specifically, ISA 540 identifies specific factors than an auditor "may consider" when evaluating the reasonableness of assumptions. The Committee recommends that the PCAOB use similar language. For example, the Committee notes the following alternative proposed language could be used in place of paragraph 16:

*.16A The auditor should evaluate the reasonableness of the significant assumptions used by the company to develop the estimate, both individually and in combination. The auditor should evaluate whether the company has a reasonable basis for the significant assumptions used and, when applicable, for its selection of assumptions from a range of potential assumptions.*

*.17A When evaluating the reasonableness of significant assumptions used by the company, an auditor may consider whether the assumptions are consistent with the following factors, if applicable:*

- i. Relevant available industry, regulatory, and other external factors, including economic conditions;*
- ii. The company's objectives, strategies, and related business risks;*
- iii. Existing market information;*
- iv. Historical or recent experience, taking into account changes in conditions and events affecting the company; and*
- v. Other significant assumptions used by the company in other estimates tested.*

**24. Are the proposed requirements described above for developing an independent expectation clear? Are there other matters relevant to the proposed requirements that the Board should consider?**

The Committee believes the proposed requirements for developing an independent expectation are clear. The Committee has identified no other matters relevant for consideration.

**25. Is the proposed requirement that the auditor have a reasonable basis for the assumptions and method used when the auditor independently derives assumptions, or uses his or her own method in developing an independent expectation, clear? Are there other matters relevant to the proposed requirement that the Board should consider?**

The Committee believes the proposed requirement that the auditor have a reasonable basis for the assumptions and method used when the auditor independently derives assumptions, or uses his or her own method in developing an independent expectation, is clear. The Committee has identified no other matters relevant for consideration.

**26. Are there instances today when auditors generate or accumulate data directly and use that data to develop an independent estimate, rather than obtain data from a third party or the company under audit? If so, please describe those instances and how the proposed requirements should address them.**

The Committee has none to note.

- 27. Are there instances when auditors obtain methods from third parties in developing an independent expectation of an accounting estimate? If so, please describe those instances and whether and how the proposed requirements should address them.**

The Committee has none to note.

- 28. Are the proposed requirements for developing an independent expectation when using the company's data, assumptions, or methods clear?**

The Committee believes the proposed requirements for developing an independent expectation when using the company's data, assumptions, or methods is clear.

- 29. Is the proposed requirement for an auditor's range clear? Are there other matters relevant to the auditor developing a range that the Board should consider?**

The Committee believes the proposed requirement for an auditor's range is clear. We have identified no other matters relevant for consideration.

- 30. Are there additional factors that the auditor should take into account when evaluating the relevance of the audit evidence obtained from events or transactions occurring after the measurement date?**

The Committee has identified no other matters relevant for consideration.

- 31. Are there other matters relevant to financial instruments that should be considered or included in Appendix A of the proposed standard?**

The Committee has identified no other matters relevant for consideration.

- 32. Are there other matters that the auditor should take into account when obtaining an understanding of the nature of the financial instruments being valued? If so, what are they?**

The Committee has identified no other matters relevant for consideration.

- 33. Are there other sources of pricing information for financial instruments that should be addressed in the proposed standard?**

The Committee has identified no additional sources of pricing information that should be addressed.

- 34. Are the requirements for using information from a pricing service clear? Are there other requirements that should be considered? For example, are there other methods used by pricing services to generate pricing information that are not currently addressed in the proposed standard?**

The Committee believes the proposed requirements for using information from a pricing service are clear. We have identified no other matters relevant for consideration.

**35. Do the requirements included in the proposed standard pose operational challenges for audit firms that use centralized groups? If so, what are they and how could they be addressed in the proposed standard?**

The Committee is unaware of any significant operational challenges for audit firms that use centralized groups.

**36. Is the auditor's responsibility when evaluating relevance and reliability of pricing information from multiple pricing services clear?**

The Committee believes the auditor's responsibility when evaluating relevance and reliability of pricing information from multiple pricing services is sufficiently clear.

**37. Are there other characteristics affecting the relevance and reliability of evidence provided by a broker quote that the proposed standard should include?**

The Committee has none to recommend however, we believe the factors affecting relevance and reliability of pricing information should clearly state that the listing is not all inclusive. For example, consider the following language in paragraph A9:

*A9. When the company's fair value measurement is based on a quote from a broker or dealer ("broker quote"), the relevance and reliability of the evidence provided by the broker quote depends on various factors, including whether [...]*

**38. Are there additional factors that the auditor should take into account when evaluating the reasonableness of unobservable inputs?**

We have identified no other factors relevant for consideration.

**39. Are the proposed requirements for evaluating audit evidence regarding the valuation of investments based on investee financial condition or operating results clear?**

While the Committee appreciates the complexities of combining three standards into a single standard, we believe that the proposed language in Appendix A to AS 1105 raises certain questions. As proposed, Appendix A appears more rules-based and in many ways, is similar to a prescriptive audit program. In this regard, existing standards recognizes that audit evidence about valuation "may", rather than "should", include various types of responsive information. The Committee believes this should be clarified within Appendix A. The Committee also recognizes investments accounted for by the cost method for which there is a risk of material misstatement regarding impairment may not require valuing the investment based on the investee's financial condition or operating results. Accordingly, the PCAOB should clarify that the "Examples" listed in the "Note" following .A1 "may", but not always, include those listed.



- 40. Does the proposed alternative approach for audits of certain investment companies represent a significant change in practice for those audits? If so, how? Is that alternative approach applied in other circumstances? If so, what are those circumstances?**

The Committee does not believe the proposed guidance represents a significant change in practice for audits of investment companies.

- 41. Are there other matters relevant to understanding the process used to develop accounting estimates that could be included in the risk assessment standard?**

The Committee has identified no other matters relevant for consideration.

- 42. Is it appropriate to include how financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures, as part of the discussion among key engagement team members of the potential for material misstatement due to fraud? If not, describe why it is not appropriate.**

The Committee believes that a discussion among key engagement team members about how financial statements could be manipulated through management bias is appropriate.

- 43. Are the additional risk factors to identify significant accounts and disclosures involving accounting estimates clear?**

The risk factors included at AS2110.60 are sufficiently clear.

We thank you for the opportunity to comment on this matter. We would be glad to discuss our opinions with you further should you have any questions or require additional information.

Sincerely,



Matthew J. Lombardi  
Chair  
Accounting Principles and Assurance Services Committee  
California Society of Certified Public Accountants



California State Teachers'  
Retirement System  
Anne Sheehan, Director of Corporate Governance  
100 Waterfront Place, MS-04  
West Sacramento, CA 95605-2807  
(916) 414-7410  
asheehan@calstrs.com

September 6, 2017

Via Email: [comments@pcaobus.org](mailto:comments@pcaobus.org)

Phoebe W. Brown, Secretary  
Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street NW  
Washington, DC 20006-2803

Re: [Docket 043: Proposed Auditing Standard for Auditing Accounting Estimates, Including Fair Measurements](#)

Dear Secretary Brown:

I am writing on behalf of the California State Teachers' Retirement System (CalSTRS) in response to the Public Company Accounting Oversight Board's (PCAOB, Board) request for written comments to the proposed auditing standard for auditing accounting estimates, including fair value measurements and amendments to other PCAOB auditing standards. CalSTRS appreciates the work of the PCAOB and its efforts in proposing these amendments to "further investor protection by promoting strengthened auditing practices, updating the standards in light of recent developments, and applying a more uniform, risk approach to an area of the audit that is of increasing prevalence and significance." CalSTRS welcomes the Board's efforts to replace the three existing standards with a single, updated standard.

CalSTRS is the largest educator only pension fund in the world, with a global investment portfolio valued at approximately \$213.5 billion as of July 31, 2017.<sup>1</sup> CalSTRS' mission is to secure the financial future and sustain the trust of California's educators. We serve the investment and retirement interests of approximately 914,000 plan participants and their beneficiaries.

It is important to us with long-term nature of CalSTRS liabilities, the composition of our portfolio with more than fifty six percent (~\$119.7 billion) of our current fund's assets being invested in the public equity market; that auditors are provided with rigorous standards in evaluating accounting estimates, including those based on fair value measurements which are some of the areas of greatest risk in an audit. We especially believe that professional skepticism is critical and continue to restate the importance of auditor's independence in ensuring objectivity and a questioning attitude necessary for professional skepticism.

---

<sup>1</sup> CalSTRS Current Investment Portfolio for the period ending July 31, 2017.  
<http://www.calstrs.com/current-investment-portfolio>



Phoebe W. Brown, Secretary  
9/6/2017  
Page 2 of 2

Independence of an auditor is critical to investor confidence and the stability and effective functioning of the capital markets. CalSTRS relies on the effective functioning of the global markets as well as the quality, comparability and reliability of financial reporting in our capital allocation decisions. It is the important role of auditors that brings standardization and discipline to corporate accounting which in turn enhances investor confidence. CalSTRS has a vested interest in ensuring the integrity, stability and efficiency of the capital markets to pay out benefits to CalSTRS' beneficiaries, California teachers.

Accounting estimates including fair value measurements often have a significant impact on a company's reported financial position and results of operations and may be subject to reporting biases, including subjective assumptions and measurement uncertainty. From a long-term investor's perspective it is critical for auditors to substantively and methodically ensure a framework to test accounting estimates and fair value measurements. From our perspective, fair value accounting with robust disclosures and appropriate underlying validation reflect a more accurate and reliable valuation. In applying professional skepticism, we agree with the PCAOB the auditor must not only test management's processes, evaluate significant assumptions for completeness, accuracy and relevance but also evaluate whether management consistently applied these assumptions based on the best available information year over year. It is essential the auditor calculate its own independent estimate based on credible assumptions reviewing subsequent events or transactions that may affect these estimates.

We agree that proposed changes will prompt auditors to devote greater attention to addressing potential management bias in accounting estimates, while reinforcing the need for professional skepticism.

We support all of the proposed rule changes outlined in release 2017-002, docket matter No. 043. CalSTRS recommends the Board adopt the auditing standard and amendments for auditing accounting estimates, including fair value measurements requiring application for audits of fiscal years beginning in the year after approval by the SEC. We recommend the PCAOB expeditiously seek SEC approval for adoption. If you have any questions or would like to discuss this letter further, please do not hesitate to contact me at 916-414-7410, [ASheehan@calstrs.com](mailto:ASheehan@calstrs.com) or Mary Hartman Morris, Investment Officer at 916-414-7412, [MMorris@CalSTRS.com](mailto:MMorris@CalSTRS.com).

Sincerely,



Anne Sheehan  
Director of Corporate Governance  
California State Teachers' Retirement System



August 30, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803

**EXECUTIVE DIRECTOR**

Cynthia M. Fornelli

**GOVERNING BOARD**

Chair

Cathy Engelbert, CEO  
Deloitte LLP

Vice Chair

Joe Adams, Managing Partner and CEO  
RSM US LLP

Brian P. Anderson  
Corporate Director

Wayne Berson, CEO  
BDO USA LLP

Jeffrey R. Brown  
University of Illinois College of Business

Lynne M. Doughtie, U.S. Chairman and CEO  
KPMG LLP

Stephen R. Howe, Jr., U.S. Chairman and  
Managing Partner, Americas Managing  
Partner, Ernst & Young LLP

J. Michael McGuire, CEO  
Grant Thornton LLP

Barry C. Melancon, President and CEO  
American Institute of CPAs

James L. Powers, CEO  
Crowe Horwath LLP

Timothy F. Ryan, Chairman and Senior Partner  
PricewaterhouseCoopers LLP

Mary Schapiro, Vice Chairman Advisory Board  
Promontory Financial Group

**Re: PCAOB Release No. 2017-002, Rulemaking Docket Matter No. 043: Proposed Auditing Standard – Auditing Accounting Estimates, Including Fair Value Measurements, and Proposed Amendments to PCAOB Auditing Standards**

Dear Office of the Secretary:

The Center for Audit Quality (“CAQ”) is an autonomous public policy organization dedicated to enhancing investor confidence and public trust in the global capital markets. The CAQ fosters high quality performance by public company auditors; convenes and collaborates with other stakeholders to advance the discussion of critical issues requiring action and intervention; and advocates policies and standards that promote public company auditors’ objectivity, effectiveness, and responsiveness to dynamic market conditions. Based in Washington, DC, the CAQ is affiliated with the American Institute of CPAs.

The CAQ appreciates the opportunity to share our views and provide input on the Public Company Accounting Oversight Board’s (PCAOB or Board) Proposed Auditing Standard, *Auditing Accounting Estimates, Including Fair Value Measurements* (the Proposal or Proposed Standard) and amendments to other PCAOB auditing standards. This letter represents the observations of the CAQ but not necessarily the views of any specific firm, individual, or CAQ Governing Board member.

Similar to views previously expressed on this topic, the CAQ applauds the PCAOB’s efforts to consider ways to promote strengthened auditing practices and update the standards considering recent developments in an area of the audit that is of increasing prevalence and significance.<sup>1</sup>

---

<sup>1</sup> See page 1 of the Proposal.

In response to the PCAOB’s standard-setting project in this area related to auditing accounting estimates, including fair value measurements and the auditor’s use of the work of specialists, the CAQ has submitted to the PCAOB multiple comment letters,<sup>2</sup> as well as *Auditing Accounting Estimates and Fair Value Measurements: A Framework* (the Framework).<sup>3</sup> The Framework represents a collaborative effort by members of the profession to provide the PCAOB with our views as it relates to the Board’s current standard-setting projects in this area.

To be operational in today’s capital markets—and to evolve in those markets—the Framework is principles-based. Principles guiding the framework that state any enhancements to the existing auditing standards for auditing accounting estimates should:

- Recognize the relationship between the auditor’s risk assessment and the audit procedures designed to sufficiently and appropriately respond to that risk;
- Consider the range of accounts (and elements of accounts) that involve varying levels of estimation uncertainty and the varying levels of complexity in measurement and risk associated with different accounting estimates;
- Recognize that accounting estimates may be subject to a significant degree of measurement uncertainty, and such inherent uncertainty will exist irrespective of the level of effort involved in auditing the accounting estimate (e.g., not imply that a level of precision exists in an inherently imprecise measurement exclusively as a result of an audit of that measurement); and
- Continue to recognize that auditors may use the work of a specialist when situations arise that require specialized knowledge and subject matter expertise in a field other than accounting or auditing.

While the Proposal incorporates many of these concepts in the Framework, we offer for the Board’s consideration our views regarding certain topics outlined in the Proposal. Our views are organized into the following sections:

- I. Objective of the Proposed Standard
- II. Identifying and Assessing Risks of Material Misstatement
- III. Valuation of Investments Based on Investee Financial Condition or Operating Results
- IV. Audit Evidence
- V. Other Matters
- VI. Applicability
- VII. Effective Date
- VIII. Conclusion

## **I. Objective of the Proposed Standard**

The objective of the Proposed Standard would require the auditor to “...obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework, and are free

<sup>2</sup> See the following CAQ comment letters submitted to the PCAOB on this topic: [Auditing Accounting Estimates Letter](#) (November 3, 2014), [PCAOB: The Auditor’s Use of the Work of Specialists](#) (July 31, 2015), [Auditing Accounting Estimates and Fair Value Measurements - A Framework](#) (December 1, 2015).

<sup>3</sup> The Framework, *Auditing Accounting Estimates and Fair Value Measurements: A Framework* can be found in the Appendix of the CAQ’s comment letter submitted to the PCAOB and publicly available on [PCAOB’s Docket 043](#).

from bias that results in material misstatement.”<sup>4</sup> Because the requirements for the auditor to consider bias are already outlined in the proposal, we do not believe that obtaining sufficient appropriate audit evidence to determine whether accounting estimates are **free from bias that results in a material misstatement** should be an explicit objective of the Proposed Standard.<sup>5</sup>

In the release text of the Proposed Standard, the Board notes that the Proposal is intended to strengthen PCAOB auditing standards to “...provide direction to prompt auditors to devote greater attention to addressing potential management bias in accounting estimates...”<sup>6</sup> Because estimates inherently include some degree of bias, auditors should obtain evidence to provide reasonable assurance that the estimate is reasonably stated and free from a material misstatement, in the context of the applicable financial reporting framework.

We believe that including the consideration of management bias in the objective of the standard could result in confusion regarding the extent of work intended to be performed by the auditor in accordance with the requirements of the PCAOB’s extant standards related to management bias and the requirements and considerations in the Proposed Standard. Potential bias should be a consideration when the auditor is evaluating the overall reasonableness of an accounting estimate.<sup>7</sup> As a result, we recommend the objective of the Proposed Standard be modified to remove “...and are free from bias that results in a material misstatement.”

## II. Identifying and Assessing Risks of Material Misstatement

### *Risk Assessment*

We are supportive of incorporating the risk assessment standards into the Proposed Standard to help focus auditors on estimates with greater risk of material misstatement when determining the nature, timing, and extent of testing procedures for auditing accounting estimates.<sup>8</sup> However, it is not clear in paragraphs .05 - .07 of the Proposed Standard how auditors would tailor their audit response to an estimate that represents a significant risk of material misstatement versus an estimate that represents a lower risk of material misstatement. We recommend that the Board make it more explicit in the Proposed Standard that auditors should consider the results of their risk assessment procedures when determining the nature, timing, and extent of their testing procedures.

In addition, while the Proposal describes the procedures that would be required to be performed under each of the three approaches the auditor could employ to respond to the risks of material misstatement, it does not address how auditors would consider the sufficiency of evidence obtained when using a combination of the approaches. For example, the auditor may use its independent estimate in combination with evidence obtained through evaluation of the work of the management specialist. The auditor may also use a sensitivity analysis to provide evidence that could reduce the scope of testing of the company’s estimate that is necessary to obtain sufficient, appropriate evidence. Providing clarification on how the auditor could evaluate

<sup>4</sup> See paragraph .03 of proposed AS 2501.

<sup>5</sup> See paragraphs .09, .11, .15, and .18 of the Proposal.

<sup>6</sup> See page 3 of the Proposal.

<sup>7</sup> See section 2.5 of the Framework, *Consideration of Management Bias*.

<sup>8</sup> See page 19 of the Proposal.

evidence from a combination of approaches could help auditors design and execute more effective and efficient audit strategies.

#### *Responding to the Risks of Material Misstatement*

Because facts and circumstances of a specific accounting estimate may not always be related to the issuer's industry, we question if it improves risk identification, or is even appropriate, to require the auditor to evaluate whether management's methods are "appropriate for the nature of the related account or disclosure and the business, industry, and environment in which the company operates,"<sup>9</sup> beyond fair value measurements, as facts and circumstances of a specific accounting estimate may not always be related to the issuer's industry. For instance, it could be perceived that the auditor would be restricted from accepting methods that are considered outside the industry norm, even though these methods may be appropriate in certain issuer-specific circumstances. Furthermore, this language does not appear to allow for auditor judgment as it could be viewed as limiting the universe of acceptable methods to those that are within the industry norm, when we believe the evaluation should be made in context of the requirements of the applicable financial reporting framework. It may be more appropriate for business, industry, and environmental considerations to be factors to consider in the auditor's overall evaluation of an accounting estimate, rather than a required evaluation in and of itself. We recommend that paragraph .10b of the Proposal be revised to read as follows: "Appropriate for the nature of the related account or disclosure." Additionally, we recommend that a second note be added to paragraph .10 of the Proposal along the lines of: "Evaluating whether the methods are appropriate for the nature of the account may include, but not be limited to, considering the business, industry, and environment in which the company operates."

The Proposed Standard provides auditors with factors that are relevant to the identification of significant assumptions.<sup>10</sup> These factors will aid auditors in developing an understanding of the "inventory" of assumptions underlying management's accounting estimate(s). However, paragraph .15e of the Proposed Standard on its own could result in auditors determining that all assumptions underlying an estimate are significant. We recommend the Board include a clarifying note in paragraph .15 of the Proposed Standard that describes how the factors work together to aid the auditor in understanding the assumptions, and determining which are significant to the estimate.

Furthermore, the note to paragraph .15 in the Proposal states that if the company has identified significant assumptions used in an accounting estimate, the auditor's identification of significant assumptions should also include those assumptions. Generally, management's processes and controls are designed to operate at a greater level of precision than the auditor's materiality and testing thresholds. Due to this difference, it is possible the auditor's conclusion as to which assumptions are significant could differ from management's. We are of the view that if the auditor is able to demonstrate that an assumption is not significant (based on the factors provided in paragraph .15), the auditor should not be required to identify the assumption as significant solely because management did. As noted in the Proposal, AS 2110, *Identifying and Assessing Risks of Material Misstatement*, establishes requirements regarding the process of identifying and assessing risks of material misstatement, including the likely sources of potential misstatements with a particular account or

---

<sup>9</sup> See paragraph .10 of the Proposal.

<sup>10</sup> See paragraph .15 of the Proposal.

disclosure.<sup>11</sup> As such, a separate requirement incremental to existing risk assessment requirements for the auditor to assess assumptions management considers significant should not be required. Therefore, we recommend that the PCAOB remove this note from the Proposal or revise the note to read along the lines of: “Note: The auditor should consider the significant assumptions used in the accounting estimate identified by the company when assessing risk; however, based on the auditor’s assessment of the risks of material misstatement, the auditor’s identification of significant assumptions is not required to be the same as the company’s.”

Paragraph .18 would require, for critical accounting estimates, the auditor to “obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect. The auditor should take that understanding into account when evaluating the reasonableness of the significant assumptions and potential management bias.” This proposed requirement may place undue emphasis on this particular Management Discussion and Analysis of Financial Condition and Results of Operations (MD&A) disclosure. Therefore, we believe it would be more appropriate to align the requirement more closely with the auditor’s risk assessment (e.g., by requiring the auditor to obtain this understanding for estimates affected by significant estimation uncertainty).

### **III. Valuation of Investments Based on Investee Financial Condition or Operating Results**

Proposed Appendix A to Auditing Standard 1105, *Audit Evidence* (Proposed Appendix A to AS 1105) seems to provide requirements similar to situations that involve the auditor’s supervision of other auditors as it relates to the valuation of investments based on investee financial condition or other operation results. We note that the PCAOB is considering wider changes to the auditing standards relating to the supervision of audits involving other auditors. As part of that project, the PCAOB should align the requirements of both this Proposal and changes to auditing standards relating to the supervision of audits involving other auditors to achieve its objectives when finalized.

Proposed Appendix A to AS 1105 describes the auditor’s responsibilities for obtaining sufficient appropriate audit evidence in certain situations in which the valuation of an investment selected for testing is based on the investee’s financial condition or operating results. However, there is no discussion of the auditor obtaining an understanding of management’s process and controls over the recording of amounts related to its investment that are recorded in the consolidated financial statements, which is a responsibility of management. It would be helpful to include obtaining an understanding of management’s processes as a consideration in Appendix A to AS 1105.

The examples provided in Proposed Appendix A to AS 1105 for situations in which the valuation of an investment is based on the investee’s financial condition or operating results could expand the current requirements for auditors without benefitting audit quality. The second note to paragraph .A1 implies that an auditor may use the assessed risk of material misstatement to apply professional judgment in determining the persuasiveness of the evidence needed. However, paragraphs .A2 - .A5 provide specific procedures for the auditor to perform in evaluating audit evidence related to the valuation of the investee investment based on the investee’s financial condition or operating results regardless of assessed risk of material misstatement.

---

<sup>11</sup> See paragraph .04 of the Proposal.

As a result, paragraphs .A2 - .A5 could be interpreted to imply the additional procedures would always need to be performed in order to increase the persuasiveness of the evidence gathered. Additional clarification by the Board on this matter would be helpful in demonstrating how an auditor would scale the procedures based on the level of risk.

Proposed Appendix A to AS 1105 would also require the auditor to obtain information about the procedures the investee's auditor performed and the results thereof or review the audit documentation of the investee's auditor.<sup>12</sup> It is our understanding that the investee's auditor may not be under any obligation to provide such information. For many noncontrolling investments, company management may not always have direct access to investee management to arrange for the company auditor to perform the proposed procedures, and in some cases the company may not be entitled to such information pursuant to the terms of the investment arrangement. We would encourage the Board to consider replacing paragraph .A4b with an additional explanation as to how the nature, timing, and extent of testing would vary if the investee's financial statements were used as part of the company's valuation process.

In addition, the Note to paragraph .A4 appears to provide an exception to this paragraph for audits of investment companies, but only if the auditor tests the "investment company's procedures for understanding the characteristics of underlying investments of the investee fund and assessing the investee fund's valuation process."<sup>13</sup> We believe it should be sufficient for the auditor to independently understand the characteristics of the underlying investments of the investee fund and assesses the investee fund's valuation process. Thus, the auditor should not have to test the investment company's process to be exempt from obtaining information about the audit of the investee or review audit documentation.

Proposed Appendix A to AS 1105 suggests that if the investee's financial statements were audited, the auditor should read available financial statements of the investee to obtain an understanding of whether the report of the investee's auditor indicates that the audit was performed under PCAOB standards and that the auditor expressed an unqualified opinion. There are often situations where the financial statements of investees are audited under other auditing standards, for example, those of the American Institute of CPAs or International Auditing and Assurance Standards Board (IAASB). The Proposal should not limit the auditor's ability to use audit reports issued in accordance with standards set by other bodies, but rather allow the auditor to evaluate the standards under which the audit was performed and the impact it would have on the audit approach. As currently written, without providing a framework for the auditor to use to evaluate other audit standards, the Proposal could be interpreted as an implied requirement for all investees to have audits performed in accordance with PCAOB standards, when there is no requirement for such an audit.

Auditing Standard 2410, *Related Parties* (AS 2410), establishes requirements regarding the auditor's evaluation of a company's identification of, accounting for, and disclosure of relationships and transactions between the company and its related parties. In applying AS 2410, the objective of the auditor is to obtain sufficient appropriate audit evidence to determine whether related parties and relationships and transactions with related parties have been properly identified, accounted for, and disclosed in the financial statements. Appendix A to AS 1105 would require the auditor to perform procedures to identify significant transactions

---

<sup>12</sup> See paragraph .A4b in Proposed Appendix A to Auditing Standard 1105 in the Proposal.

<sup>13</sup> See note to .A4 on page A2-9 of the Proposal.



between the company and the investee and to evaluate the accounting for and disclosure of those transactions. For those investees considered to be related parties, we propose revising this requirement to link to AS 2410 to avoid confusion on what procedures would be performed as part of this requirement that are not already included in AS 2410.

Proposed Appendix A to AS 1105 states the auditor should, “with respect to subsequent events and transactions of the investee occurring after the date of the investee’s financial statements but before the date of the company’s auditor’s report, read available interim financial statements of the investee and other available information and make inquiries of the investee to identify subsequent events and transactions that could be material to the company’s financial statements.”<sup>14</sup> We believe the requirement would be difficult to operationalize, as often the investor company’s auditor does not have direct access to investee management. The proposed requirement to make inquiries of the investee should be a procedure to consider performing depending on the level of risk identified.

Proposed Appendix A to AS 1105 includes a requirement for the auditor to perform procedures over those factors other than the financial condition and operating results reported in the investee’s financial statements that impact the valuation of the company’s investment.<sup>15</sup> This requirement seems to contradict the principles in the risk assessment standards, as the auditor is required to perform procedures on such factors without regard to the risk of material misstatement associated with them, or the potential impact they may have on the valuation of the company’s investments. We believe the auditor should exercise professional judgment in evaluating the risk(s) of material misstatement associated with the factors reflected in the valuation of the company’s investment and perform procedures responsive to the identified risk(s).

Proposed Appendix A to AS 1105 would provide a scope exclusion for equity method investments if (1) the investor’s equity in the underlying net assets and its share of the earnings or losses of the investee are recorded based on investee financial statements that are audited by an auditor other than the principal auditor and (2) the other auditor is supervised under Auditing Standard 1201, *Supervision of the Audit Engagement* (AS 1201), or the work and report of the other auditor are used under Auditing Standard 1205, *Part of the Audit Performed by Other Independent Auditors*.<sup>16</sup> This scope exclusion should also apply when the equity method investment is audited by the same auditor as the principal auditor and is supervised pursuant to AS 1201.

#### **IV. Audit Evidence**

##### *Third-Party Pricing Information*

Appendix A of the Proposal indicates that the auditor should assess the relationship the pricing service and/or broker dealer has with management, and whether they have the ability to directly or indirectly control or significantly influence the pricing service and/or broker dealer.<sup>17</sup> Third-party pricing services generally provide independent pricing information free of influence from any one issuer (e.g., the same price is released to all

<sup>14</sup> See .A3b of the Proposal.

<sup>15</sup> See .A3d of the Proposal.

<sup>16</sup> See footnote 1 of Proposed Appendix A to AS 1105.

<sup>17</sup> See paragraphs .A4c and .A9a in Appendix A of the Proposal.



customers without bias), and we believe that this absence of management bias increases the relevance and reliability of the evidence. Paragraphs .A4c and .A9a should be updated to make it clear that when considering the relationship of the pricing service or broker dealer with the issuer, the auditor would consider the results of the procedures completed in accordance with AS 2410. Pricing information from parties not considered to be related parties would be more independent than pricing information from sources determined to be related parties.

Appendix A could be made more clear as to whether the requirements apply to each individual financial instrument (e.g., individual security basis by CUSIP number) selected for testing, or whether auditors are able to perform certain evaluations more broadly (e.g., in buckets) about the third-party's pricing practices and methodologies. Paragraphs .A5 –.A7 appear to assume that the auditor understands how each financial instrument in the portfolio is valued, including what the inputs were or what the 'similar' financial instruments used to value the financial instrument were. This information may not be available to auditors from the pricing service due to its proprietary nature. Instead of obtaining an understanding of how the fair value of each individual financial instrument was developed, auditors should be able to assess the estimation uncertainty of the financial instruments based on the asset class and other characteristics of the financial instrument. If auditors believe the financial instrument has lower estimation uncertainty, we believe that auditors should be allowed to understand and evaluate the methods and inputs used by pricing services at a group level (e.g., by asset class) rather than for each individual financial instrument. We recommend that the Board make it clear that the assessment of risk and level of estimation uncertainty can be considered when the auditor is applying the requirements in Appendix A.

Paragraph .A8 lists four conditions that must be met in order to be able to obtain "less information ...about the particular methods and inputs used by the individual pricing services." While this paragraph was likely intended to reduce the necessary effort of auditors to evaluate the methods used by pricing services if there are multiple pricing services pricing the same financial instrument, each of these conditions could require additional procedures to be performed by the auditor, perhaps making it impracticable for the auditor to utilize the benefits of this paragraph. We are of the view that if (i) the auditor assesses the financial instrument to have 'lower estimation uncertainty' (i.e., based on the asset class and other characteristics of the financial instrument), (ii) the auditor obtains multiple prices for the financial instrument, (iii) those pricing services routinely price that type of financial instrument, (iv) the prices obtained are reasonably consistent, and (v) the auditor has obtained an understanding of the pricing services' methodologies at an asset class level, the auditor would have obtained sufficient appropriate audit evidence with respect to the valuation of the financial instrument. We recommend that the paragraph be updated to reflect these considerations.

#### *Developing an Independent Expectation of the Estimate*

The Proposal states that "If the auditor's independent expectation consists of a range rather than a point estimate, the auditor should determine that the range is appropriate for identifying a misstatement of the accounting estimate and supported by sufficient appropriate audit evidence."<sup>18</sup> While this language better acknowledges the variability and imprecision that may be inherent within the range of possible outcomes, we remain concerned that the statement implies a level of precision within a range of estimates that may not be

---

<sup>18</sup> See paragraph .25 of proposed AS 2501.

feasible and could possibly limit the auditor’s ability to use an independent estimate in combination with one or more other approaches to evaluate the reasonableness of the accounting estimate.

There are a variety of accounting estimates with high estimation uncertainty where the auditor’s execution of one or a combination of approaches, as described in the Proposal, may indicate a range of ‘reasonable’ estimates (e.g., certain insurance reserves, mortgage servicing rights), which could exceed the established materiality threshold. We recommend the Board include clarification in the Proposal that would indicate that a range of ‘reasonable’ estimates could exceed the established materiality threshold. For example, the following language could make this concept clearer: “While the range may serve to confirm higher estimation uncertainty, this should not preclude the auditor, after performing sufficient appropriate procedures, from concluding that management’s accounting estimate is reasonable. If the auditor concludes that it is appropriate to develop a range, the auditor narrows the range, based on available audit evidence, until all outcomes within the range are considered reasonable.”<sup>19</sup>

### *Contradictory Evidence*

The auditor applies the requirements of extant Auditing Standard 1105, *Audit Evidence* (Extant AS 1105), for purposes of designing and performing audit procedures to obtain sufficient appropriate audit evidence. Extant AS 1105 states that “Audit evidence consists of both information that supports and corroborates management’s assertions regarding the financial statements or internal control over financial reporting and information that contradicts such assertions.”<sup>20</sup> In executing the audit, the auditor considers evidence obtained in other areas of the audit that may contradict evidence provided by the company to support an accounting estimate. This includes situations where the auditor has chosen to develop an independent expectation of an accounting estimate. Regardless of the nature of planned audit procedures, the auditor understands management’s process for developing the accounting estimate and considers whether the auditor is aware of potentially contradictory audit evidence, either related to the estimate or from evidence obtained elsewhere in the audit. We recommend that the Board update the Proposal to include the requirements in paragraph .02 of Extant AS 1105. This would help clarify how an auditor should approach evaluating audit evidence obtained to determine if it corroborates or contradicts management’s conclusions about the reasonableness of the accounting estimate.

## **V. Other Matters**

Amending the auditing standards may not address all challenges in these potentially complex areas, as they are only applicable to the auditors and not to the financial statement preparers. For instance, calls for additional transparency regarding accounting estimates, including fair value measurements, may be better addressed through corresponding changes to the financial reporting framework to enhance or expand required disclosures. Therefore, we believe a holistic approach that examines opportunities for improvement in the roles and responsibilities of all members of the financial reporting supply chain will best meet the needs of investors and other stakeholders, and we encourage regulators and standard-setters to consider the benefits to users of the financial statements of maintaining alignment. This approach will be even more

<sup>19</sup> See section 3.6 of the CAQ’s [Auditing Accounting Estimates and Fair Value Measurements: A Framework](#).

<sup>20</sup> See paragraph .02 of AS 1105.

important when the PCAOB's final auditing standard over the auditor's reporting model is effective, which will require auditors to disclose critical audit matters in the auditor's report.

The proposed amendment to paragraph .64 of Auditing Standard 2401, *Consideration of Fraud in a Financial Statement Audit*, eliminates the following sentence relating to performing a retrospective review: "The significant accounting estimates selected for testing should include those that are based on highly sensitive assumptions or and are otherwise significantly affected by judgments made by management." As a result, the paragraph now appears to require the auditor to perform a retrospective review for all accounting estimates. We believe the wording should be modified to allow the auditor to consider the inherent risk of the accounting estimate in determining whether to perform this procedure.

As noted in the Proposal, this Proposed Standard would replace Auditing Standard 2501, *Auditing Accounting Estimates* (AS 2501), as well as supersede Auditing Standard 2502, *Auditing Fair Value Measurements and Disclosures*, and Auditing Standard 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AS 2503).<sup>21</sup> As a result of the Proposed Standard replacing one standard and superseding two others, some guidance in the current standards is no longer included in the Proposed Standard. The Board should consider if there is any guidance being replaced or superseded that should be included in the Proposal. For example, there is guidance in AS 2503 related to auditing derivatives that should be included in the Proposed Standard.

## **VI. Applicability**

As the Board indicated in the Proposal, "accounting estimates are common in the financial statements of many emerging growth companies (EGCs). Therefore, investors in EGCs may benefit as much as, if not more than, investors in other types of issuers as a result of the proposed amendments."<sup>22</sup> The CAQ agrees with the Board's statement in the Proposal. Consistent with that view, the Proposal should be applicable to EGCs.

We are supportive of the Proposed Standard being applicable to the audits of brokers or dealers. The Board should consider if they should release guidance specific to auditors of brokers or dealers that would assist them with implementing the Proposal.

## **VII. Effective Date**

We recognize the Proposal, if approved, could represent a significant increase in efforts from smaller firms. In particular, the requirements in the Proposal will have a significant impact on planning and risk assessment procedures that will require the development of audit methodologies and training that will need to be in place before the start of the audit. In the text of the Proposal the Board recognizes that they have observed differences in the methodologies followed by larger and smaller firms when auditing fair value measurements.<sup>23</sup> The Board should consider this point as it determines the final effective date. The amount

---

<sup>21</sup> See page i of the Proposal.

<sup>22</sup> See page 53 of the Proposal.

<sup>23</sup> See section titled "Current Audit Practices Regarding Accounting Estimates" on pages 10 and 11 of the Proposal.

of time a firm needs to prepare for the new standard may be different based upon the methodologies that firm follows today to audit accounting estimates, and some firms may need more time to prepare for implementation of the proposed changes.

Audit firms will need to develop and implement training and effective quality control processes to be in place at the beginning of the audit to support and facilitate the effective implementation. To help ensure smaller firms have sufficient time to prepare, we recommend that the standard be effective for audit periods ending two years after the SEC approves the final standard.

## **VIII. Conclusion**

The CAQ is supportive of the Board's development of a potential new standard related to auditing accounting estimates and fair value measurements, and commends the Board and its Staff for advancements made in this important area.

We encourage the PCAOB to continue to work closely with the IAASB as each body develops standards in this important area. The CAQ also submitted a comment letter in response to the IAASB's Proposed International Standard on Auditing (ISA) 540 (Revised), *Auditing Accounting Estimates and Related Disclosures*, which the PCAOB may find informative.<sup>24</sup>

\*\*\*\*

The CAQ appreciates the opportunity to comment on the Proposal and would be pleased to discuss our comments or answer any questions that the Staff or the Board may have regarding the views expressed in this letter.

Sincerely,



Cynthia M. Fornelli  
Executive Director  
Center for Audit Quality

cc:

PCAOB

James R. Doty, Chairman

Lewis H. Ferguson, Board Member

Jeanette M. Franzel, Board Member

Steven B. Harris, Board Member

Martin F. Baumann, Chief Auditor and Director of Professional Standards

---

<sup>24</sup> See the [CAQ's August 1, 2017 comment letter submitted to the IAASB](#).

SEC

Jay Clayton, Chairman

Michael S. Piwowar, Commissioner

Kara M. Stein, Commissioner

Wesley R. Bricker, Chief Accountant

Julie Erhardt, Deputy Chief Accountant

Marc A. Panucci, Deputy Chief Accountant

Sagar S. Teotia, Deputy Chief Accountant



## Key Observations from Recent CAQ Comment Letters to the PCAOB

This document summarizes certain key observations from recent CAQ comment letters submitted to the PCAOB. It should not be viewed as all inclusive, and should be read in conjunction with all CAQ comment letters applicable to the related proposals and concept releases.

### I. Proposed Auditing Standard for Auditing Accounting Estimates, Including Fair Value

**Measurements (Proposed Estimates Standard):** In response to the PCAOB’s standard-setting project related to auditing accounting estimates, the CAQ has submitted multiple comment letters<sup>1</sup> to the PCAOB. Below is a summary of the comments raised in the most recent [comment letter](#) to the PCAOB on this topic.

#### a) Objective of the Proposed Estimates Standard

- The Proposed Estimates Standard includes the explicit objective that estimates be free from bias that results in a material misstatement. This could result in confusion regarding the extent of work intended to be performed by the auditor in accordance with the requirements of the PCAOB’s extant standards related to management bias and the requirements in the Proposed Estimates Standard.

#### b) Identifying and Assessing Risks of Material Misstatement

- It is not clear in the Proposed Estimates Standard that auditors would tailor their audit response to an estimate that represents a significant risk versus an estimate that represents a lower risk of material misstatement.
- We question if it improves risk identification to require the auditor to evaluate whether management’s methods are “appropriate for the nature of the related account or disclosure and the **business, industry,** and environment in which the company operates,” as facts and circumstances of a specific accounting estimate may not always be related to the issuer’s industry. Management’s processes and controls are designed to operate at a greater level of precision than the auditor’s materiality and testing thresholds. Due to this difference, it is possible that the auditor’s conclusion as to which assumptions are significant could differ from management’s. If the auditor is able to demonstrate that an assumption is not significant, the auditor should not be required to identify the assumption as significant solely because management did.

#### c) Valuation of Investments Based on Investee Financial Condition or Operating Results

- We have concerns with the proposed requirements in Appendix A to Auditing Standard 1105, *Audit Evidence* (AS 1105) in the Proposed Estimates Standard for situations in which the valuation of an investment is based on the investee’s financial condition or

<sup>1</sup> See the following CAQ comment letters submitted to the PCAOB on this topic: [Auditing Accounting Estimates Letter](#) (November 3, 2014), [Auditing Accounting Estimates and Fair Value Measurements - A Framework](#) (December 1, 2015).



operating results. The proposed requirements could significantly expand the current requirements for auditors without benefitting audit quality. For many noncontrolling investments, company management may not have direct access to investee management or may not be entitled to such information pursuant to the terms of the investment arrangement to enable the company auditor to perform the proposed procedures. There are often situations where the financial statements of investees are audited under other auditing standards. The Proposed Estimates Standard should not limit the auditor's ability to use audit reports issued in accordance with standards set by other bodies.

**d) Audit Evidence**

- We also raised concerns in our comment letter on the need for clarification of requirements related to third party pricing information, developing an independent expectation of the estimate, and the evaluation of contradictory audit evidence.

**II. Proposed Amendments to Auditing Standards for Auditor's Use of the Work of Specialists**

**(Proposed Amended Specialists Standard):** The CAQ has submitted a prior comment letter<sup>2</sup> to the PCAOB. Below is a summary of the comments the CAQ raised in the most recent [comment letter](#) to the PCAOB on this topic.

**a) Objectivity**

- We support using the term "objectivity" versus the phrase "relationship to the company" for company specialists (employed or engaged). When evaluated appropriately, a specialist's relationship to the company would be considered within the assessment of a specialist's objectivity. Evaluating the degree of objectivity of a company's specialist should be viewed as a continuum that affects the nature, timing, and extent of audit procedures.

**b) Expertise**

- The proposed amendments to paragraphs .B6a and .B8(3) of AS 1105 seem to suggest that the auditor would need to evaluate whether the data was "appropriately" used by the specialist. It is unclear whether this requirement is intended to be similar to paragraph .14 of the Proposed Estimates Standard. The auditor is not expected to have the expertise of a person trained for or qualified to engage in the practice of another profession or occupation and based on auditor judgment, may encounter matters that require such specialized skill. The additional proposed requirements in .B8 that "the auditor should evaluate whether the methods used by the specialists are appropriate and the significant assumptions used by the specialists are reasonable" would require an elevated level of knowledge by the auditor.

<sup>2</sup> See the following CAQ comment letter submitted to the PCAOB on this topic: [CAQ Specialists Comment Letter](#) (July 31, 2015).



**c) Requirement for auditors to apply the same auditing procedures to accounting estimates regardless of whether or not management uses an external specialist**

- The Note to paragraph .B8 indicates that the auditor should also comply with the requirements in paragraphs .09 - .18 of the Proposed Estimates Standard, if the company's specialist assisted the company in developing an accounting estimate. We suggest that the nature and extent of procedures should not be the same when a company employed specialist develops an accounting estimate themselves as opposed to when management uses a company-engaged specialist (i.e., an external specialist) that is competent and objective. Furthermore, certain of these procedures may not be practicable given the proprietary nature of certain specialist models or the auditor's lack of sufficient knowledge of the specialist's field to perform all the procedures in these paragraphs. We recommend keeping the principles of extant Auditing Standard 1210, *Using the Work of a Specialist* in regards to this topic.

**d) Communication**

- We support the requirement to "inform the specialist of the work to be performed, which includes establishing and documenting an understanding with the specialist..." The language within Staff Consultation Paper No. 2015-01: The Auditor's Use of the Work of Specialists (Consultation Paper), which does not appear to be included in the potential amended standard, suggests that "evidence of the agreement between the auditor and the auditor's specialist might be in the planning memorandum, separate memorandum, audit programs, or other related workpapers." We believe this provides an appropriate amount of flexibility to the auditor and should be explicitly stated within Auditing Standard 1201, *Supervision of the Audit Engagement* (AS 1201).

**e) Smaller Firm Burden**

- We recognize the Proposed Amended Specialists Standard, if approved, could place a significant and possibly disproportionate burden on accounting firms that do not have employed specialists on staff. The PCAOB should also consider this point as it determines the final effective date. The amount of time a firm needs to prepare for the new standard may be different based upon the resources and staffing available and some firms may need more time to prepare for implementation of the proposed changes.

**III. Proposed Amendments Relating to the Supervision of Audits Involving Other Auditors and Proposed Auditing Standard – Dividing Responsibility for the Audit with Another Accounting Firm (Proposed Supervision of Other Auditors Standard):** The CAQ has submitted a prior comment letter<sup>3</sup> to the PCAOB. Below is a summary of the comments the CAQ raised in the most recent [comment letter](#) to the PCAOB on this topic.

<sup>3</sup> See the following CAQ comment letter submitted to the PCAOB on this topic: [Supervision of Audits Involving Other Auditors](#) (July 29, 2016).





**a) Lead Auditor Determination**

- ...[T]here could be scenarios where no one auditor would meet the criteria [in determining the sufficiency of participation] of proposed Auditing Standard 2101, *Audit Planning* (AS 2101) paragraph .B2, such as when no individual auditor audits the risks of material misstatement associated with a larger portion of the company's financial statements. The determination of a lead auditor should take into account other qualitative considerations, such as legal and licensing requirements of certain jurisdictions.

**b) Other Auditors' Compliance with Independence and Ethics**

- We have significant concerns related to the implementation of the proposed amendment to AS 2101.B4 to gain an understanding of each other auditor's (1) process for determining compliance with the SEC independence requirements and PCAOB independence and ethics requirements and (2) experience in applying the requirements. Requiring each lead auditor at an engagement team level to gain an understanding of each other auditor's processes (even at the firm level of the other auditor) represents a significant change in existing practice, without a clear understanding of the added benefit. We do not believe such a requirement will necessarily strengthen compliance and could add significant costs. The written representation (premised on consideration of a firm's system of quality control) has an important role to play in considering the independence of the other auditor. Only when there is no such basis for reliance on the system of quality control should the lead auditor consider performing incremental procedures.

**c) Qualifications of and Communication with Other Auditors**

- The PCAOB is considering a new requirement for the lead auditor to inquire about the other auditors' policies and procedures relating to assignment and training of individuals, and gaining an understanding of the knowledge, skill, and ability of the other auditors who assist the lead auditor with planning or supervision. Inquiring about how other auditors assign individuals to audits and train individuals may not be practical for the lead auditor, as such policies and procedures may be considered confidential and proprietary in nature. Gaining an understanding of the knowledge, skill, and ability of other auditors who assist the lead auditor with planning, supervision, or review enables the lead auditor to appropriately vary the extent of supervision.

**d) Lead Auditor Communications**

- We believe communicating all identified risks of material misstatement in all cases is too broad of a requirement. We have a concern that the lead auditor may not always be in a position to identify the complete listing of risks at a location or business unit, and the other auditor should be leveraged in this regard. We suggest modifying the proposed amendments to require communication by the lead auditor of significant matters



identified from discussions with engagement team members of risks of material misstatement as required by Auditing Standard 2110, *Identifying and Assessing Risks of Material Misstatement* paragraphs .49 - .51.

**e) Review of Specified Documentation, including Summary Memorandum**

- Proposed amendment AS 1201.B2c requires the lead auditor to “[d]irect the other auditor to provide for review specified documentation with respect to the work requested to be performed....” We believe that in a risk-based approach, the determination of documentation to be reviewed is determined by multiple factors, including the professional competence of the other auditors and the risks of material misstatement addressed by their work. We request that the PCAOB clarify that there may be certain situations where it is not necessary to obtain specified documentation beyond Auditing Standard 1215, *Audit Documentation* paragraph .19 (such as if the lead auditor determines that the extent of supervision provided is sufficient and they were involved in the planning, execution, and conclusions regarding the procedures performed by the other auditor). It would be useful for the PCAOB to acknowledge that specified documentation obtained by the lead auditor may include a summary of the procedures performed.

**f) Multi-tier audits**

- We believe proposed amendment AS 1201.B3 should not require the lead auditor to obtain, review, and retain the summary memorandum of the second other auditor, unless determined necessary by the lead auditor (e.g., due to risk or other audit matters). If the knowledge, skill, and ability of the first other auditor is not appropriately considered in determining the supervisory approach, the lead auditor may spend time that is unwarranted reviewing the work of a competent second other auditor.

August 31, 2017

Ms. Phoebe W. Brown  
Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, D.C. 20006-2803

Colorado Public Employees' Retirement Association  
Mailing Address: PO Box 5800, Denver, CO 80217-5800  
Office Locations: 1301 Pennsylvania Street, Denver  
1120 W. 122nd Avenue, Westminster  
303-832-9550 • 1-800-759-PERA (7372)  
[www.copera.org](http://www.copera.org)

RE: Request for Comments: *Auditing Accounting Estimates, Including Fair Value Measurements*

Dear PCAOB:

I am submitting the following comments to the PCAOB for consideration in response to a request for comments on the proposed auditing standard *Auditing Accounting Estimates, Including Fair Value Measurements* (PCAOB Release No. 2017-002). These comments represent my perspective as an institutional investor for a large public pension plan representing more than 560,000 current and retired members and over \$44 billion in assets.

As institutional investors, we recognize the increasing importance and complexity of accounting estimates. With the increased prominence of accounting estimates, we are troubled to hear of the elevated level of accounting estimate deficiencies observed by the PCAOB inspection staff. We believe that accounting estimates represent one of the largest misstatement risks, and therefore we welcome an updated approach to the auditing standards.

Based on our interactions with management teams, we are familiar with management's assessment of their own companies. More often than not, their judgment is optimistic. This management overconfidence can create a bias in subjective accounting estimates. The risk of biased estimates highlights the need for the new standard to emphasize the need for professional skepticism from auditors. We believe the PCAOB should explicitly state that auditors have a responsibility to actively look for errors, rather than corroborating management's estimates.

We also believe that investors are better served when auditors develop independent expectations in addition to testing management estimates. When auditors begin their testing from a biased estimate, there may be a natural tendency to be anchored to the biased view. If the PCAOB does not believe it is prudent to require independent expectations, we believe the

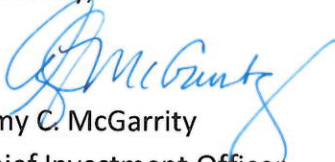
standard should at least encourage the development of independent expectations, especially in areas identified as high risk in the risk assessment process.

The PCAOB's approach to updating the risk assessment standards is a well thought-out improvement to the current standards; however, we would like to recommend one addition for consideration. While auditors are assessing the risk to accounting estimates, we think the PCAOB should require auditors to evaluate the accuracy of management's prior estimates going back a minimum of the last three years. An investment analysis that only incorporates the previous year's results would be inappropriate; we believe the same principle holds true for auditing. Management teams who have been poor estimators in the past are likely to be poor estimators in the future and deserve greater scrutiny.

Overall, we support the PCAOB's new standards on auditing accounting estimates. The new audit processes required of auditors and the increased focus on accounting estimates are a step in the right direction. We believe the new standards the PCAOB is proposing will improve audit quality and help to reduce material misstatements.

We appreciate the PCAOB allowing us the opportunity to comment on the proposed standard on Accounting Estimates and welcome additional opportunities to provide input to the PCAOB as this process continues.

Sincerely,



Amy C. McGarrity  
Chief Investment Officer  
Colorado PERA

Via Email

August 28, 2017

Office of Secretary  
PCAOB  
1616 K Street, NW  
Washington, DC 20006-2803

*Re: PCAOB Rulemaking Docket Matter No. 043/PCAOB Rulemaking Docket Matter No. 044*

Dear Madam Secretary:

This letter provides comments on the Public Company Accounting Oversight Board's (PCAOB or Board) Proposed Auditing Standard, *Auditing Accounting Estimates, Including Fair Value Measurements* (Estimates Proposal),<sup>1</sup> and the related *Proposed Amendments to Auditing Standards for Auditor's Use of the Work of Specialists* (Specialist Proposal) (Estimates Proposal and Specialist Proposal collectively the Proposals).<sup>2</sup>

The Council of Institutional Investors (CII or Council) supports the Proposals. The Council is a non-profit, nonpartisan association of public, corporate, and union pension funds, and other employee benefit plans, foundations and endowments with combined assets that exceed \$3 trillion. Our member funds are major, long-term investors committed to protecting the retirement savings of millions of American workers. CII also has associate members, including asset managers with more than \$20 trillion in assets under management.<sup>3</sup>

---

<sup>1</sup> PCAOB Release No. 2017-002 (June 1, 2017), <https://pcaobus.org/Rulemaking/Docket043/2017-002-auditing-accounting-estimates-proposed-rule.pdf>.

<sup>2</sup> PCAOB Release No. 2017-003 (June 1, 2017), <https://pcaobus.org/Rulemaking/Docket044/2017-003-specialists-proposed-rule.pdf>.

<sup>3</sup> For more information about the Council of Institutional Investors ("CII"), please visit CII's website at [http://www.cii.org/about\\_us](http://www.cii.org/about_us).



August 28, 2017  
Page 2 of 6

## CII Policies

As the leading U.S. voice for effective corporate governance and strong shareholder rights, CII believes that accurate and reliable audited financial statements are critical to investors in making informed decisions, and vital to the overall well-being of our capital markets.<sup>4</sup> That belief is reflected in the following CII membership-approved policy on the “Independence of Accounting and Auditing Standard Setters”:

Audited financial statements including related disclosures are a critical source of information to institutional investors making investment decisions. The efficiency of global markets—and the well-being of the investors who entrust their financial present and future to those markets—depends, in significant part, on the quality, comparability and reliability of the information provided by audited financial statements and disclosures. The quality, comparability and reliability of that information, in turn, depends directly on the quality of the . . . standards that . . . auditors use in providing assurance that the preparers’ recognition, measurement and disclosures are free of material misstatements or omissions.<sup>5</sup>

This policy establishes the principle that “investors are the key customer of audited financial reports and, therefore, the primary role of audited financial reports should be to satisfy in a timely manner investors’ information needs.”<sup>6</sup> Our membership reaffirmed that principle when it approved substantial revisions to our policy on “auditor independence.”<sup>7</sup> That policy, as revised, includes the following additional provisions that we believe may be relevant to issues raised by the Proposals:

**2.13a Audit Committee Responsibilities Regarding Independent Auditors:** The audit committee should fully exercise its authority to hire, compensate, oversee and, if necessary, terminate the company’s

---

<sup>4</sup> CII, Policies on Other Issues, Independence of Accounting and Auditing Standard Setters (updated Mar. 1, 2017), [http://www.cii.org/policies\\_other\\_issues#indep\\_acct\\_audit\\_standards](http://www.cii.org/policies_other_issues#indep_acct_audit_standards).

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> CII, Policies on Corporate Governance § 2.13 Auditor Independence (last updated Sept. 30, 2016), [http://www.cii.org/corp\\_gov\\_policies](http://www.cii.org/corp_gov_policies).

August 28, 2017

Page 3 of 6

independent auditor. In doing so, the committee should take proactive steps to promote auditor independence and audit quality. Even in the absence of egregious reasons, the committee should consider the appropriateness of periodically changing the auditor, bearing in mind factors that include, but are not limited to:

....

- the clarity, utility and insights provided in the auditor’s report

....

- the quality and frequency of communication from the auditor to the audit committee

....

Investors are the “customers” and end users of financial statements and disclosures in the public capital markets. Both the audit committee and the auditor should recognize this principle.

....

#### **2.13f Shareowner Votes on the Board’s Choice of Outside Auditor:**

Audit Committee charters should provide for annual shareowner votes on the board’s choice of independent, external auditor.<sup>8</sup>

### CII Views on Proposals

#### *Estimates Proposal*

We support the Estimates Proposal. We have long believed that fair value accounting with robust disclosures provides investors with more useful information than amounts that would be reported under amortized cost or other existing alternative accounting approaches.<sup>9</sup> Further, we believe investors assign a high value to the auditor’s testing and evaluation of fair value estimates and other critical accounting estimates reported by issuers.<sup>10</sup> That view is demonstrated by

---

<sup>8</sup> *Id.*

<sup>9</sup> See, e.g., Letter from Jeff Mahoney, General Counsel, Council of Institutional Investors et al., to Mr. Timothy F. Geithner, Secretary, Department of Treasury et al. 2 (Feb. 13, 2009) (“fair value accounting . . . best serves the interests of investors both now and over the long term”), [http://www.aicpa.org/Press/DownloadableDocuments/CAQ\\_CII\\_CFA\\_Admin\\_Fair\\_Value\\_Letter.pdf](http://www.aicpa.org/Press/DownloadableDocuments/CAQ_CII_CFA_Admin_Fair_Value_Letter.pdf); see generally Stephen G. Ryan, “Fair Value Accounting: Understanding the Issues Raised by the Credit Crunch” 1 (July 2008) (describing the key reasons why fair value accounting benefits investors), [http://www.cii.org/files/publications/white\\_papers/07\\_11\\_08\\_fair\\_value\\_accounting.pdf](http://www.cii.org/files/publications/white_papers/07_11_08_fair_value_accounting.pdf).

<sup>10</sup> See, e.g., Jeff Mahoney, “Investor Perspectives & Related Considerations on Auditing Estimates and Fair Value Measurements: Remarks at the Meeting of the Standing Advisory Group of the Public Company Accounting

August 28, 2017  
Page 4 of 6

the broad support the PCAOB has received from investors for pursuing improvements to the auditor’s report that would include information directly from the auditor about significant management estimates made in the preparation of the financial statements.<sup>11</sup>

We are concerned that the “PCAOB continues to identify high rates of audit deficiencies in this area [of accounting estimates].”<sup>12</sup> We commend the Board’s effort’s to address those deficiencies, in part, by “strengthen[ing] auditor responsibilities for accounting estimates, including fair value measurements.”<sup>13</sup>

We believe the Estimates Proposal provides benefits to investors in at least two ways.

First, the Estimates Proposal provides a “single, consistent set of requirements” for auditing accounting estimates.<sup>14</sup> We agree with the Board that creating greater uniformity in the auditing standards in this important area should: (1) “increase . . . the quality of the information presented in the financial statements;”<sup>15</sup> and (2) “enhance the audit committee’s understanding of the auditor’s responsibilities, and, therefore, potentially facilitate communications between the audit committee and the auditor.”<sup>16</sup>

Second, the Estimates Proposal provides a better alignment between the Board’s requirements for auditing accounting estimates and the Board’s risk assessment standards.<sup>17</sup> We agree with the Board that by aligning more closely with the risk

---

Oversight Board” 2 (Oct. 2, 2014), [http://www.cii.org/files/issues\\_and\\_advocacy/correspondence/2014/10\\_02\\_14\\_JMahoney%20PCAOB%20SAG\\_%20Investor%20Perspectives.pdf](http://www.cii.org/files/issues_and_advocacy/correspondence/2014/10_02_14_JMahoney%20PCAOB%20SAG_%20Investor%20Perspectives.pdf).

<sup>11</sup> PCAOB, Exchange Act Release No. 81,187, 82 Fed. Reg. 35,396, 35,397 (July 28, 2017) (“areas that investors have indicated would be of particular interest to them, [include] . . . significant management estimates . . . made in preparing the financial statements”), <https://www.gpo.gov/fdsys/pkg/FR-2017-07-28/pdf/2017-15718.pdf>.

<sup>12</sup> See, e.g., Steven B. Harris, Board Member, “Statement on Proposed Auditing Standard on Auditing Accounting Estimates, Including Fair Value Measurements, and Proposed Amendments to Auditing Standards for Auditor’s Use of the Work of Specialists” 2 (June 1, 2017), <https://pcaobus.org/News/Speech/Pages/Harris-statement-auditing-accounting-estimates-specialists-6-1-17.aspx>.

<sup>13</sup> PCAOB Release No. 2017-002, at 40.

<sup>14</sup> *Id.* at 41.

<sup>15</sup> *Id.* at 42.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*



August 28, 2017

Page 5 of 6

assessment standards the Estimates Proposal “may lead to increased audit quality for harder-to-measure estimates . . . due to enhanced procedures.”<sup>18</sup> On this point, we generally agree with the 2014 comments of then Chief Investment Officer of CII member Colorado PERA:

While we believe auditing estimates is critical and worthy of its own standard, aligning it with risk assessment standards seem prudent. Investors want auditors to spend their time efficiently, and to be efficient, auditors must first know where the biggest risk to material misstatements are located, and then appropriately plan and execute the audit plan around high risk areas. This approach resonates well with us, and we believe it is the framework that should be used to develop standards for accounting estimates.<sup>19</sup>

### *Specialist Proposal*

We also support the related Specialist Proposal. We agree with the Board that as accounting frameworks continue to evolve in response to investor demands for more fair value accounting, “the use of the work of specialists continues to increase in both frequency and significance.”<sup>20</sup> The increasing use of specialists heightens the risk that if the specialist’s work is not properly overseen or evaluated by the auditor, the auditor’s work may not be sufficient to detect a material misstatement in fair value (or other) estimates.<sup>21</sup>

We are concerned that the “PCAOB inspections staff continues to observe deficiencies related to auditors’ use of specialists’ work, such as failures to evaluate the assumptions of company specialists in fair value measurements or failures to consider contradictory evidence or issues raised by an auditor's specialist.”<sup>22</sup> We therefore endorse the Board’s efforts to address those deficiencies, in part, by pursuing the Specialist Proposal designed to direct

---

<sup>18</sup> *Id.*

<sup>19</sup> Letter from Jennifer Paquette, Chief Investment Officer, Colorado PERA to Office of the Secretary, Public Company Accounting Oversight Board 1 (Nov. 3. 2014), [https://pcaobus.org/Rulemaking/Docket043/013\\_Colorado\\_PERA.pdf](https://pcaobus.org/Rulemaking/Docket043/013_Colorado_PERA.pdf).

<sup>20</sup> PCAOB Release No. 2017-003, at 1.

<sup>21</sup> *Id.* (“If a specialist's work is not properly overseen or evaluated by the auditor, there may be heightened risk that the auditor's work will not be sufficient to detect a material misstatement in accounting estimates.”)

<sup>22</sup> *Id.* at 2.

August 28, 2017

Page 6 of 6

“auditors to devote more attention to the work of specialists and enhance[] the coordination between auditor’s and specialists.”<sup>23</sup>

In addition to the prospect of improving audit quality generally, we agree with the Board that the “proposed requirements to test and evaluate the work of a company’s specialist may result in some auditors developing a better understanding of a company’s critical accounting estimates related to relevant financial statement accounts and disclosures.”<sup>24</sup> The result should be “improved communications between the auditor and the audit committee”<sup>25</sup> and, importantly, improved communications between the auditor and investors upon adoption of the Board’s proposed standard to enhance the standard auditor’s report.<sup>26</sup>

\*\*\*\*

We appreciate the opportunity to provide the Council’s investor-focused perspective on the Proposals. Please let me know if you have any questions about the contents of this letter.

Sincerely,



Jeffrey P. Mahoney  
General Counsel

---

<sup>23</sup> *Id.* at 38.

<sup>24</sup> *Id.* at 40.

<sup>25</sup> *Id.*

<sup>26</sup> 82 Fed. Reg. at 35,397 (proposed standard would require “communication of critical audit matters . . . relevant to investors and other financial statement users by informing them of issues identified in the audit that were significant to the auditor, focusing attention on issues that would be pertinent to understanding the financial statements, and enhancing investor confidence in the financial statements”).



**Crowe Horwath LLP**  
 Independent Member Crowe Horwath International  
 One Mid America Plaza, Suite 700  
 Post Office Box 3697  
 Oak Brook, Illinois 60522-3697  
 Tel +1 630 574 7878  
 Fax +1 630 574 1608  
[www.crowehorwath.com](http://www.crowehorwath.com)

August 30, 2017

Office of the Secretary  
 Public Company Accounting Oversight Board  
 1666 K Street, N.W.  
 Washington, D.C. 20006-2803

RE: PCAOB Rulemaking Docket Matter No. 043, Proposed Auditing Standard: *Auditing Accounting Estimates, Including Fair Value Measurements*, PCAOB Release No. 2017-002

Office of the Secretary:

Crowe Horwath LLP appreciates the opportunity to comment on the Public Company Accounting Oversight Board's ("PCAOB") proposed auditing standard, *Auditing Accounting Estimates, Including Fair Value Measurements* ("Proposed Standard").

We support the Board's efforts to improve audit quality by enhancing existing auditing standards. As indicated in our letter to the Board dated November 3, 2014, we agree that changes to existing auditing standards for accounting estimates and fair value measurements would be helpful to clarify and combine the requirements which are currently in multiple PCAOB auditing standards. We are pleased to provide our observations regarding the Proposed Standard.

### **Proposed Auditing Standard AS 2501**

#### *Evaluating the Company's Method*

Paragraph .10b of the Proposed standard requires the auditor to evaluate whether the methods used by the company to develop accounting estimates are "appropriate for the nature of the related account or disclosure and the business, industry, and environment in which the company operates." Based on facts and circumstances, we believe a company may choose a method that is outside of the norm for its business, industry or environment; which for the company may be the most appropriate method to develop the estimate. In the aforementioned situation, we are concerned an auditor would be prohibited from accepting the company's method, because it chose a method which was outside the norm for its industry, however appropriate for its facts and circumstances. On page A3-10 of the proposed standard, the Board recognizes potential challenges in practice that could result from this requirement. To address these challenges, it appears the Board intended this requirement to be a general evaluation. To achieve this objective, we recommend paragraph .10b of the Proposal be replaced to read as follows: "Appropriate for the nature of the related account or disclosure." Additionally, we recommend that a second note be added to paragraph .10 of the Proposal to read as follows: "Factors to consider in evaluating whether the methods are appropriate for the nature of the account or disclosure should include: the business, industry, and environment in which the company operates."

#### *Identification of Significant Assumptions*

It appears the objective of paragraph .15 is to identify assumptions use by the company which are important to the recognition or measurement of the accounting estimate in the financial statements. We agree with this objective; however, we believe that this objective is more closely aligned with the risk

assessment process to identify risks of material misstatement. As such, we recommend the Board consider moving this paragraph to AS 2110, *Identifying and Assessing Risks of Material Misstatement* and incorporating into proposed paragraph .28(e).

Notwithstanding the above discussion, the note to paragraph .15 reads as follows: “If the company has identified significant assumptions used in an accounting estimate, the auditor’s identification of significant assumptions should also include those assumptions.” While we believe management is knowledgeable about the assumptions which are significant to an accounting estimate; we disagree with the note in paragraph .15 of the proposed standard that requires the auditor to include those assumptions which management has identified as significant in the auditor’s identification of significant assumptions. We believe assumptions identified by management as significant to the estimate should be considered a factor that is relevant to auditor’s identification of significant assumptions, as opposed to a requirement. Our position is based on the possibility that the auditor’s and management’s judgment could differ. The auditor is responsible for making appropriate judgment calls throughout the audit process and this should not differ in this area. Due to this potential difference in judgment, we recommend adding an additional factor to paragraph .15: “Are identified by the company as significant assumptions” and removing the note to paragraph .15.

#### *Evaluating the Reasonableness of Significant Assumptions*

Paragraph .18 of the proposed standard requires the auditor to obtain an understanding of how management analyzed the sensitivity of its significant assumptions for critical accounting estimates. This paragraph also requires the auditor to take that understanding into account when evaluating the reasonableness of significant assumptions. Similar to the discussion above in *Identification of Significant Assumptions*, we believe the requirement in paragraph .18 to obtain an understanding is more closely aligned with the risk assessment process to identify risks of material misstatement as the auditor is obtaining an understanding of a management process. This understanding should not only be used to evaluate management bias but also should be considered in developing the nature, timing and extent of the auditor’s procedures. It is unclear whether the auditor would be required to obtain this understanding if the auditor choose a substantive only testing strategy. Therefore, we recommend the Board consider moving the requirement to obtain an understanding of how management analyzed the sensitivity of its significant assumptions for critical accounting estimates to AS 2110, *Identifying and Assessing Risks of Material Misstatement*, and retain the concept that the auditor use this understanding to evaluate the reasonableness of the significant assumptions and potential management bias in paragraph .18.

Similar to the concept above in which we believe the auditor’s and management’s judgment may differ with respect to signification assumptions, we believe similar differences can exist for critical accounting estimates. We believe the requirement in paragraph .18 should apply only when 1) the estimate is a critical accounting estimate and 2) an assumption was identified by the auditor as being significant based on the procedures in paragraph .15 of the proposed standard.

#### *Developing an Independent Expectation of the Estimate*

Paragraph .25 of the proposed standard states “if the auditor’s independent expectation consists of a range rather than a point estimate, the auditor should determine that the range is appropriate for identifying a misstatement of the accounting estimate and supported by sufficient appropriate audit evidence.” We believe there are estimates which are highly uncertain. The ranges for these estimates have the potential to exceed overall materiality; however, based on sufficient audit evidence the ranges may be appropriate and not representative of a misstatement. Page A3-26 of Additional Discussion of Proposed Standard and Proposed Amendments appears to acknowledge that a range developed by the auditor would include only reasonable outcomes supported by sufficient appropriate audit evidence and is thus appropriate, even if that range exceeds the auditor’s established level of materiality. We believe paragraph 25 should explicitly incorporate the above concept for clarity.

Office of the Secretary  
Public Company Accounting Oversight Board  
August 30, 2017  
Page 3

### *Appendix A – Special Topics*

Paragraph. A8 sets forth that less information is needed about particular methods and inputs when pricing information is obtained from multiple pricing services and four conditions are met. It is unclear the level of audit evidence that would be required to support that the conditions in paragraph. A8a -. A8d are present. It is also unclear whether these conditions can be applied by grouping financial instruments into groups with similar characteristics and risks or whether the conditions need to be applied at an individual financial instrument level. Of particular concern are conditions. A8a. and. A8d. We believe if these two conditions are required to be supported by sufficient audit evidence at the individual financial instrument level, the practicability of utilizing multiple pricing services would diminish. Additionally, we believe sufficient appropriate audit evidence can be obtained based solely on conditions. A8b and. A8c being present. As a result, we believe the lead in sentence to the conditions should read "...when considering the following conditions:"

#### *AS 1105 - Appendix A – Investments Based on Investee Financial Condition or Operating Results*

As stated in A1 of this appendix – "this appendix describes the auditor's responsibilities for obtaining sufficient appropriate audit evidence in certain circumstances in which the valuation of an investment selected for testing is based on the investee's financial condition or operating results. The nature and extent of audit procedures necessary to obtain sufficient appropriate audit evidence in these situations depend on:

- a. The significance of the investee's financial condition and operating results to the valuation of the investment;
- b. The risk of material misstatement of the associated investment; and
- c. The availability of financial statements of the investee and if so, their relevance and reliability, including whether the financial statements were audited."

The above factors appear to determine the nature and extent of audit procedures primarily based on the investee statements. The risk assessment and the identified procedures noted in paragraphs. A1-. A5 could cause a significant amount of audit effort for an investee which represents a low risk of material misstatement to the investor. In addition, footnote 1 attempts to scale this appendix by indicating that "this section does not apply to investments accounted for under the equity method if (1) the investor's equity in the underlying net assets and its share of the earnings or losses of the investee are recorded based on investee financial statements that are audited by an auditor other than the principal auditor and (2) the other auditor is supervised under AS 1201 *Supervision of the Audit Engagement*, or the work and report of the other auditor are used under AS 1205, *Part of the Audit Performed by Other Independent Auditors*." However, footnote 1 only applies if the auditor scopes in the equity investment as a significant component thus applying either AS 1201 or AS 1205 depending on who the component auditors are. We believe this requirement is not appropriate because it does not consider the overall risk associated with the equity investment to the group audit in order to judgmentally determine the appropriate level of audit evidence necessary to support the recording of the equity investment. We believe it would be appropriate in some situations to simply use the investee's audited financial statements as sufficient appropriate audit evidence. We encourage the PCAOB to review this appendix and draft guidance based on the risk associated with the group audit and not the individual investee.

#### *Effective date*

PCAOB Release No. 2017-002 indicates that the proposed standard and amendments would be effective, subject to approval by the SEC, for audits of financial statements for fiscal years beginning the year after SEC approval. The time and effort necessary to incorporate the proposed standard and

Office of the Secretary  
Public Company Accounting Oversight Board  
August 30, 2017  
Page 4

amendments into audit methodologies, guidance and audit programs, and to train staff, is anticipated to be significant. Additionally, the proposed standard and amendments would impact audit planning, which is performed earlier in the year. As a result, we suggest deferring the effective date to fiscal years beginning two years after SEC approval.

We appreciate the efforts the PCAOB has undertaken to improve audit quality associated with auditing estimates. We would be pleased to respond to any questions regarding our comments. Should you have any questions please contact James A. Dolinar at (630) 574-1649 or Michael G. Yates at (574) 236-7644.

Cordially,

A handwritten signature in cursive script that reads "Crowe Horwath LLP".

Crowe Horwath LLP



**Deloitte & Touche LLP**  
30 Rockefeller Plaza  
New York, New York 10112  
USA  
[www.deloitte.com](http://www.deloitte.com)

August 29, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Re: PCAOB Rulemaking Docket Matter No. 043**

Deloitte & Touche LLP ("D&T" or "we") is pleased to respond to the request for comments from the Public Company Accounting Oversight Board (the "PCAOB" or the "Board") on its *Proposed Auditing Standard — Auditing Accounting Estimates, Including Fair Value Measurements* (the "Proposed Auditing Standard") and proposed amendments to PCAOB auditing standards (the "Proposed Amendments") (collectively, "the Proposal" or "the Release"), which addresses potential changes to various auditing standards (specifically, replacing PCAOB AS 2501, *Auditing Accounting Estimates* (PCAOB AS 2501), PCAOB AS 2502, *Auditing Fair Value Measurements and Disclosures* (PCAOB AS 2502), and PCAOB AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (PCAOB AS 2503) with a single standard) and potential amendments to the risk assessment standards to more specifically address certain aspects of auditing accounting estimates.

Our comments herein should be read concurrently with our comments provided in response to the request for comment from the PCAOB on the *Proposed Amendments to Auditing Standards for Auditor's Use of the Work of Specialists* (the "Specialists Proposal"), as certain provisions of the proposed auditing standards include references between the two proposals in order to illustrate how the proposed requirements in the two releases would work together.

**Overall Comments**

We support the Board's efforts to enhance the standards of the PCAOB that address auditing accounting estimates, including fair value measurements, and to align the applicable requirements with the PCAOB's risk assessment standards. We commend the Board for developing a single standard on auditing accounting estimates and fair value measurements to replace the existing standards. We also agree with the PCAOB that the Proposed Auditing Standard achieves better integration and alignment with the PCAOB's risk assessment standards, and are pleased that the Proposed Auditing Standard retains the three approaches in the existing standards for testing accounting estimates.

We believe that the PCAOB's efforts in considering amendments to the standards addressing auditing accounting estimates, including fair value measurements along with the Specialists Proposal is thoughtful and appropriate. These concurrent proposals allow commenters to better evaluate and analyze the effect of such proposed amendments, both individually and collectively, and for the PCAOB to consider the feedback collectively as well. We continue to believe it will be important that any resulting amendments pertaining to these two proposals become effective at the same time. We recommend that the effective date should provide auditors with a period of at least two years from the time the standard is approved by the SEC, as we believe there could be significant efforts for accounting firms to undertake in order to properly prepare to implement these requirements. We also commend the PCAOB Staff and Board Members for devoting a significant portion of the June 1, 2017, *Open Board Meeting to Consider Adopting Standard on the Auditor's Report, and Proposing Updated Requirements for Auditing Accounting Estimates and an Auditor's Use of the Work of Specialists* ("Open Meeting") to discussing matters relevant to the Proposal.

We support the objectives of the Board's Proposal, and offer certain constructive suggestions to help clarify the final standards' requirements and auditors' responsibilities for auditing accounting estimates, including fair value measurements. We are ready to engage constructively with the Board and other stakeholders to provide our perspective and experiences in order to facilitate the development of improvements to the PCAOB's auditing standards that will enhance audit quality. In this letter, we present a summary of the primary matters for additional consideration that we have identified:

- Focus on Internal Control and Consideration of Risks of Material Misstatement Due to Fraud.
- Need for Practical Implementation Guidance and Possible Approach for Its Development.
- Consistency with International Standards.
- Using the Work of a Company Specialist.
- Developing an Independent Expectation as a Range.
- Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results.

We have also included more granular observations and suggestions in the attached appendix.

#### **Focus on Internal Control and Consideration of Risks of Material Misstatement Due to Fraud**

The Proposal lacks sufficient consideration of both (1) identification and testing of relevant controls and (2) identification of and response to risks of material misstatement due to fraud in relation to auditing accounting estimates. The Proposal should provide additional clarity and expanded guidance in these areas, building on the framework in the risk assessment standards, and PCAOB AS 2201, *An Audit of Internal Control over Financial Reporting that Is Integrated with an Audit of Financial Statements*.

##### *Focus on Internal Control*

Identifying and testing relevant controls that address risks of material misstatement relating to accounting estimates (for both integrated audits and audits of financial statements) can be particularly challenging given the nature of the controls that typically address accounting estimates (i.e., relevant controls are often complex, management review-type controls). Evaluating the design and implementation of these controls can be difficult for auditors in practice because of the complexity of the activities performed by the control owner and the judgment exercised in performing those activities. Further, we note that testing the operating effectiveness of controls, including controls over complex models or methods used, can be critical in auditing accounting estimates and, in some circumstances, may be required (i.e., in situations in which substantive procedures alone do not provide sufficient appropriate audit evidence<sup>1</sup>). In addition, it may be important to identify and test controls that address risks of material misstatement related to the following aspects:

- Complexity of a model.
- Large volumes of data, including the processing of data.
- Extraction or transfer of data from an IT system or between IT systems.

---

<sup>1</sup> See PCAOB AS 2301.17.



- Modifications to data.
- Selection and changes to assumptions.

We therefore suggest that the Proposal provide additional guidance to auditors in order to recognize circumstances, especially in today's environment, in which substantive procedures alone do not provide sufficient appropriate audit evidence. This may, for example, especially be the case for complex estimates that use large volumes of data when developing accounting estimates, which is becoming increasingly common because of changes in the applicable financial reporting frameworks (e.g., the issuance by the FASB of ASC 606, *Revenue from Contracts with Customers* (ASC 606), ASC 842, *Leases* (ASC 842), and ASC 326, *Financial Instruments-Credit Losses* (ASC 326)). In addition, we also believe the Proposal could be enhanced to encourage testing, in nonintegrated audits, of the operating effectiveness of controls in conjunction with substantive testing, as we believe this may often be the most effective audit strategy.

#### *Consideration of Risks of Material Misstatement Due to Fraud*

We agree with the Board that accounting estimates often are some of the areas of greatest risk in an audit, requiring additional audit attention and appropriate application of professional skepticism. It is important that the Proposal place appropriate emphasis on identifying and responding to the potentially heightened risks of material misstatement due to fraud related to accounting estimates that often arise because of the complexity and the subjectivity involved in their development. We believe this could be accomplished by enhancing connectivity between the Proposed Auditing Standard and the requirements of PCAOB AS 2401, *Consideration of Fraud in a Financial Statement Audit* (PCAOB AS 2401). For example, the Proposed Auditing Standard could provide reference to paragraphs 54 and 63-65 of PCAOB AS 2401 as it relates to responding to the risks of material misstatement in order to better connect the Proposed Auditing Standard to PCAOB AS 2401.

#### **Need for Practical Implementation Guidance and Possible Approach for Its Development**

Consistent with comments we made in response to the *Staff Consultation Paper — Auditing Accounting Estimates and Fair Value Measurements*, we believe the effectiveness of a single principles-based accounting estimates standard and the consistency of its application by auditors would be vastly improved if comprehensive implementation guidance were developed to support its application by auditors. Such implementation guidance might demonstrate how the auditing framework described in the Proposal could be applied to many different types of estimates with varying degrees of complexity and measurement uncertainty (including fair value estimates) and could focus, for example, on estimates that are the subject of common inspection findings (e.g., fair value measurement of goodwill, indefinite lived assets, investments, and securities<sup>2</sup>) and on new accounting estimates that may arise as a result of recent revisions to the accounting standards (e.g., ASC 606, ASC 842, ASC 326). In addition, implementation guidance might also address examples of situations in which management uses a specialist or information provided by a third party in developing the estimate, as well as when the auditor uses information provided by a third party when auditing an accounting estimate through developing an independent estimate for comparison to the entity's estimate. Such implementation guidance could also provide additional perspectives as to how to use the output of a centralized approach to address information developed by third-party information providers.

We believe it is important for such implementation guidance to be based on practical and current real-life examples to enhance the effectiveness of such guidance. To that end, auditors, preparers, specialists, and third-party information providers (including, but not necessarily limited to, pricing

---

<sup>2</sup> See International Forum of Independent Audit Regulators ("IFIAR"), Report on 2016 Survey of Inspection Findings (Mar. 3, 2017); IFIAR, Report on 2015 Survey of Inspection Findings (Mar. 3, 2016); (available at <https://www.ifiar.org/IFIAR-Global-Survey-of-Inspection-Findings.aspx>).

services) could work effectively and productively together to develop implementation guidance based on the framework for auditing accounting estimates described in the Proposal. We encourage the PCAOB to be involved in such an effort. Such implementation guidance could, in the context of specific accounting estimates, focus on considerations related to the identification and assessment of risks of material misstatement (including fraud risks, the consideration of management bias, and how the auditor might identify and consider contradictory evidence), as well as how to identify and test relevant controls.

### **Consistency with International Standards**

Consistency of auditing standards used worldwide serves to enhance audit quality. To that end, we are aware of the Exposure Draft, proposed International Standard on Auditing (ISA) 540 (Revised), *Auditing Accounting Estimates and Related Disclosures* (“ED-540”) issued by the International Auditing and Assurance Standards Board (“IAASB”) in April 2017. We note the differing approaches to auditing accounting estimates taken by the PCAOB and the IAASB in their proposed standards. We believe that such diversity in practice due to differing auditing standards is making it increasingly difficult for firms to develop international audit methodologies that are aligned with the requirements of both sets of standards. If it is determined that such consistency is not desirable for reasons specific to a particular jurisdiction, then standard setters should consider highlighting what they believe should differ and the reasons for such differences so it is clear what the incremental requirements are. In finalizing the Proposal, we recommend the PCAOB interact with the IAASB to understand the reasons underlying the differing approaches taken by the IAASB in their proposed standard and consider ED-540, as well as the responses to ED-540 and the Proposed Auditing Standard, in determining the necessary changes to the Proposed Auditing Standard and the Proposed Amendments.

### **Using the Work of a Company Specialist**

The issues related to use of company specialists and information provided by third parties in developing accounting estimates or in independent estimates used by auditors in testing management’s estimates are inextricably linked with the auditing challenges related to accounting estimates. We believe the requirements in the Proposed Auditing Standard, in conjunction with the Proposed Appendix B to PCAOB AS 1105, *Audit Evidence* (see the Specialists Proposal), will likely set expectations for auditors that will go well beyond the expectations for issuer management, resulting in practical challenges that will be difficult, if not impossible, for auditors to resolve. Specifically, paragraph 19 of the Proposed Auditing Standard requires the auditor to test and evaluate the company specialist’s work in conjunction with testing the company’s process. Paragraph 19, when considered in conjunction with proposed requirements related to testing the company’s process, would require the auditor to test the methods, data, and significant assumptions used or developed by a company specialist in the same manner that the auditor would if the accounting estimate was developed without the assistance of a company specialist. In some cases, company specialists or third-party information providers view some or all aspects of their work product as proprietary (particularly when it comes to the fair value of securities) and difficulties exist in relation to issuer management obtaining information about how the accounting estimate was developed. In turn, this would result in the auditors’ inability to obtain the necessary access to that information to address the requirements in the Proposed Auditing Standard. The requirements in the Proposed Auditing Standard would likely result in third-party information providers being overwhelmed with requests from auditors and result in an inability for the third-party information providers to individually address requests from auditors for the information needed to appropriately audit accounting estimates in accordance with the Proposed Auditing Standard. Further, in many cases, auditors will need to involve auditor’s specialists to a far greater extent than what the extant standards require in order to apply these requirements appropriately. It is important that the Proposal, together with the Proposed Appendix B to PCAOB AS 1105, consider these practical challenges and provide clarity regarding how the auditor would be expected to overcome them. In addition, implementation guidance demonstrating how an auditor

would test and evaluate the company specialist's work would help support the consistent application of the requirement in the Proposed Auditing Standard.

We request that you also consider our comments provided in response to the request for comment from the PCAOB on the Specialists Proposal on this matter given the reference in these requirements to the Proposed Appendix B to PCAOB AS 1105.

### **Developing an Independent Expectation as a Range**

We note that paragraph 25 of the Proposed Auditing Standard requires that if the auditor's independent expectation consists of a range rather than a point estimate, the auditor should determine that the range is appropriate for identifying a misstatement of the accounting estimate and supported by sufficient appropriate audit evidence. The process involved in developing the estimate can be complex and involve significant levels of judgment and, thus, depending on the level of estimation uncertainty, the range of possible values for an accounting estimate could be wide (and in some cases exceed materiality). We suggest that the Proposed Auditing Standard explicitly acknowledge these situations. Further, the definition of the phrase "range is appropriate for identifying a misstatement" is unclear, and we therefore request the Board to clarify considerations for determining the "appropriateness" of a range. We suggest that, as estimation uncertainty and the range increases or as management's process becomes more complex, the auditor may be required to consider whether using either an alternative testing approach (i.e., testing the company's process used to develop the accounting estimate or evaluating audit evidence from events or transactions occurring after the measurement date) or a combination of testing approaches is appropriate to obtain sufficient appropriate audit evidence regarding the reasonableness of the accounting estimate. For example, the auditor may develop an independent expectation of the accounting estimate in which estimation uncertainty is high and the expectation consists of a range that is greater than materiality, thereby providing support for a conclusion about the sufficiency and appropriateness of the evidence. While this is consistent with the auditor's expectation based on historical experience and the nature, size, and composition of the account, the auditor may also determine that testing management's process, in addition to developing the independent expectation, is necessary to obtain an aggregation of sufficient appropriate audit evidence regarding the reasonableness of the accounting estimate.

### **Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results**

Proposed Appendix A to PCAOB AS 1105 describes the auditor's responsibilities for obtaining sufficient appropriate audit evidence in certain situations in which the valuation of an investment selected for testing is based on the investee's financial condition or operating results.

PCAOB AS 2301, *The Auditor's Responses to the Risks of Material Misstatement* (PCAOB AS 2301), establishes requirements regarding designing and implementing appropriate responses to the risks of material misstatement. As provided in AS 2301, the auditor should design and perform audit procedures in a manner that addresses the assessed risks of material misstatement.<sup>3</sup> As the assessed risk of material misstatement increases, the evidence from substantive procedures that the auditor should obtain also increases. The evidence provided by the auditor's substantive procedures depends upon the mix of the nature, timing, and extent of those procedures.<sup>4</sup> The requirements throughout Proposed Appendix A to PCAOB AS 1105 are unclear in the context of risk assessment and appear to contradict the PCAOB's risk assessment standards as they require the auditor to perform certain procedures based on other factors (e.g., significance of the investment), seemingly without regard for the identified and assessed risks of material misstatement. In the attached appendix, we have

---

<sup>3</sup> See PCAOB AS 2301.08.

<sup>4</sup> See PCAOB AS 2301.37.

included specific areas in the Proposed Appendix A to PCAOB AS 1105 that we believe need further clarification to better align the requirements with the PCAOB's risk assessment standards.

Paragraph A4 of Proposed Appendix A to PCAOB AS 1105 also has certain requirements that involve the auditor (1) obtaining and evaluating information about the professional reputation and standing of the investee's auditor and (2) obtaining information about the procedures performed by the investee's auditor. These procedures seem to overlap with certain procedures in PCAOB AS 1205, *Part of the Audit Performed by Other Independent Auditors* (PCAOB AS 1205). For example, it is unclear if the requirements in paragraph A4a of the Proposed Auditing Standard are consistent with the requirements in paragraph 10 of PCAOB AS 1205, or if additional procedures would be necessary. In addition, the requirement in paragraph A4b could be interpreted to be similar to the requirement in PCAOB AS 1205, which states, in part:

In addition, the principal auditor should consider performing one or more of the following procedures:

- Visit the other auditor and discuss the audit procedures followed and results thereof.
- Review the audit programs of the other auditor. In some cases, it may be appropriate to issue instructions to the other auditor as to the scope of the audit work.
- Review additional audit documentation of the other auditor relating to significant findings or issues in the engagement completion document.

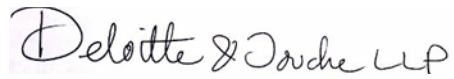
As a result, it is unclear in situations in which paragraph A4 is applicable whether the requirements of PCAOB AS 1205 are also applicable (as well as whether paragraph A4 affects the reporting required by PCAOB Form AP). Therefore, we request that the Board provide further clarification on this matter. Furthermore, the requirements in paragraphs A4 and A5 of the Proposed Appendix A to PCAOB AS 1105 seem to overlap with the PCAOB's *Proposed Amendments Relating to the Supervision of Audits Involving Other Auditors* and the *Proposed Auditing Standard — Dividing Responsibility for the Audit with Another Accounting Firm* (collectively, the "Other Auditors Proposal") issued under PCAOB Rulemaking Docket Matter No. 042.

We do not believe that changes to standards related to investments valued based on the investee's financial condition or operating results should be done in isolation. Rather the PCAOB should address requirements related to communicating and being involved in an other auditor's work in conjunction with the Other Auditors Proposal as addressing each separately could result in unintended consequences. Further, addressing these requirements in tandem with the Other Auditors Proposal would put into context how the requirements in the Proposed Appendix A to PCAOB AS 1105 fit into the overall use of another auditor.

\* \* \*

D&T appreciates the opportunity to provide our perspectives on these important topics. Our comments are intended to assist the PCAOB in analyzing the relevant issues and potential effects of the Proposal. We are ready to collaborate with the PCAOB on these important matters. If you have any questions or would like to discuss these issues further, please contact Dave Sullivan at 714-436-7788 or Megan Zietsman at 203-761-3142.

Very truly yours,



Deloitte & Touche LLP

cc: James R. Doty, PCAOB Chairman  
Lewis H. Ferguson, PCAOB Member  
Jeannette M. Franzel, PCAOB Member  
Steven B. Harris, PCAOB Member  
Martin F. Baumann, PCAOB Chief Auditor and Director of Professional Standards

Jay Clayton, SEC Chair  
Kara M. Stein, SEC Commissioner  
Michael S. Piwowar, SEC Commissioner  
Wesley R. Bricker, SEC Chief Accountant  
Marc A. Panucci, SEC Deputy Chief Accountant  
Sagar S. Teotia, SEC Deputy Chief Accountant  
Russell G. Golden, FASB Chairman

## APPENDIX

In this appendix, we have addressed certain issues raised in the Proposal in more detail. Our comments and observations are organized as follows:

- I. Proposed AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*
- II. Proposed Appendix A to PCAOB AS 1105, *Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results*
- III. Proposed Amendments to the Risk Assessment Standards

- I. Proposed AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*

### Testing the Company's Process Used to Develop the Accounting Estimate

Proposed AS 2501.09 requires the auditor to test the company's process, which involves performing procedures to test and evaluate the methods, data, and significant assumptions used in developing the estimate in order to form a conclusion about whether the estimate is reasonable in the circumstances, in conformity with the applicable financial reporting framework, and free from bias that results in material misstatement. However, it is unclear if the proposed requirement would include assumptions, models, and data used by company specialists and third-party information providers (regardless of whether management provided the information to the company specialists or the company specialist sourced or developed the information independently). If the proposed requirement does apply to assumptions, models, and data provided by company specialists or a third-party information provider, we believe there will be significant challenges by auditors in addressing this requirement, particularly when information provided or models used are considered proprietary by such company specialists or third-party information providers. Therefore, we recommend clarifying in paragraph 09 of the Proposed Auditing Standard how the requirement to test the company's process is affected if a company specialist or a third-party information provider assists the company in developing an accounting estimate.

### Evaluating the Company's Methods

We support the requirement in paragraph 10 of the Proposed Auditing Standard related to the auditor evaluating whether the company's methods used to develop the accounting estimates are in conformity with the applicable financial reporting framework (which is consistent with existing standards). We also acknowledge that the existing standards require the auditor to consider whether the valuation method is appropriate in relation to the business, industry, and environment in which the entity operates when evaluating whether the entity's method of measurement is appropriate in circumstances in which there are no observable market prices and the entity estimates fair value using a valuation method.<sup>5</sup> However, we do not believe that the auditor should be required to evaluate whether the methods are "appropriate for the nature of the related account or disclosure and the business, industry, and environment in which the company operates<sup>6</sup>" for all accounting estimates, as we do not believe all methods accepted within the industry are objectively established for all accounting estimates in all circumstances, and in some cases, practices used by companies within the same industry may be justifiably different based on different underlying facts and circumstances. In addition, as management would not necessarily be compelled to consider the acceptability of a company's method against other methods used within the same industry, we do not believe it is appropriate to place the auditor in "management's shoes." We therefore believe it is sufficient and

---

<sup>5</sup> See paragraph 18 of extant AS 2502.

<sup>6</sup> See paragraph 10b of the Proposed Auditing Standard.

appropriate that the methods used to develop accounting estimates be evaluated by the auditor against the requirements of the applicable financial reporting framework, as this aligns with the requirements that management would have to comply with in preparing the financial statements. In determining if the methods used to develop accounting estimates are in conformity with the requirements of the applicable financial reporting framework, the auditor may include consideration of the business, industry, and environment in which the company operates. Even if it were possible to objectively or comprehensively determine accepted industry practices, it's not clear what the auditor would do when such practices might conflict with the requirements of the applicable financial reporting framework.

Paragraph 11 of the Proposed Auditing Standard requires the auditor to determine the reasons for a change in the method used by the company for determining the accounting estimate and evaluate the appropriateness of such change. We believe it would be more appropriate for management to determine the reasons for changing the method used to determine the accounting estimate and for the auditor to be required to evaluate whether management's reasons for making the change are appropriate. We also believe that clarification is needed regarding the requirement for the auditor to obtain an understanding of the reasons for the method selected by the company in circumstances in which the company has determined that different methods result in significantly different estimates and evaluate the appropriateness of the selection. It is unclear what the auditor's responsibility is in circumstances in which the company has not performed such an analysis (including whether a failure by management to perform this analysis is indicative of a control deficiency). Further, it's unclear what specifically constitutes a change in the method used by the company. For example, management may use multiple methods to develop a range and considers the output of each method to determine a best estimate. Management may select a point in the range that is not consistent with the point in the range in the prior reporting period (e.g., management has historically selected the mid-point in the range, but has selected a point at the high-end of the range in the current period), but may determine this represents the current best estimate for purposes of recording the accounting estimate. It is unclear whether this would be considered a change in method that would require evaluation in accordance with paragraph 11 of the Proposed Auditing Standard. Therefore, we recommend clarifying in paragraph 11 of the Proposed Auditing Standard what specifically constitutes a change in the method used by the company. We also recommend clarifying the auditor's responsibility when the company has not performed an analysis to determine whether different methods result in significantly different estimates.

#### Testing Data Used

We support the requirement in paragraph 13 of the Proposed Auditing Standard that requires the auditor to evaluate the relevance and reliability of data the company uses from an external source in accordance with PCAOB AS 1105. We believe the requirement in paragraph 13 should be expanded to clarify that company data supplied to a third party or company specialist is not data from an external source, but rather company data and should be evaluated in accordance with paragraph 12 of the Proposed Auditing Standard.

We support the requirement<sup>7</sup> added regarding the factors for the auditor to use to evaluate whether the data was appropriately used by the company in developing the accounting estimate. However, we believe additional clarification is necessary to provide a framework for evaluating if the source of the company's data has changed from the prior year and, if so, whether the change is appropriate.<sup>8</sup>

#### Identification of Significant Assumptions

---

<sup>7</sup> See paragraph 14 of the Proposed Auditing Standard.

<sup>8</sup> See paragraph 14c of the Proposed Auditing Standard.

We believe further clarity as to the characteristics of significant assumptions as described in paragraph 15 of the Proposed Auditing Standard would be helpful to auditors, particularly for auditing fair value measurements; however, the characteristics should not be set forth as a list of factors that would need to always be explicitly evaluated for every assumption used by management to make an accounting estimate. Given the wide range of different types of estimates, certain factors may (1) not always be relevant, (2) vary in individual significance, or (3) be more important for consideration because of other relevant factors specific to particular assumptions. Therefore, we suggest that the lead-in sentence to the list of factors be revised to read as follows (additional text is shown using **bold underline**; recommended deletions to the text are shown using double ~~strikethrough~~):

Factors, **as applicable**, that **the auditor may consider to be** ~~are~~ relevant in ~~to~~ identifying significant assumptions include whether the assumptions:

We are also concerned with the characteristic in paragraph 15e of the Proposed Auditing Standard that states a factor that is relevant to identifying significant assumptions includes whether the assumptions are “otherwise related to an identified and assessed risk of material misstatement to the estimate.” We believe that this would require auditors to identify all assumptions for which a risk of material misstatement has been identified as significant, and therefore the determination of which assumptions are significant assumptions would be overly broad. All assumptions that give rise to a risk of material misstatement (even when determined not to be significant assumptions), would, in accordance with the PCAOB’s existing risk assessment standards, have to be addressed through the performance of further audit procedures. As a result, not all assumptions would need to be designated as significant assumptions. Further, the persuasiveness of the audit evidence necessary to be obtained related to significant assumptions is likely greater than that necessary for assumptions that are not determined to be significant assumptions. We therefore suggest revising this last characteristic of significant assumptions to conform to the language presented in the *Staff Consultation Paper — Auditing Accounting Estimates and Fair Value Measurements* (Staff Consultation Paper), which would read as follows (additional text is shown using **bold underline**; recommended deletions to the text are shown using double ~~strikethrough~~):

e. Otherwise are **important to the recognition or measurement of the accounting estimate**<sup>9</sup> ~~related to an identified and assessed risk of material misstatement to the estimate.~~

We also believe the requirement for the auditor to identify any assumptions as significant if the company has identified the assumption as significant would create challenges for the auditor in practice. Significant assumptions are not defined, nor is there a requirement for management to identify significant assumptions within U.S. GAAP. Therefore, there is no mutually agreed upon definition of a significant assumption used in an accounting estimate. Our concern is that, depending on how management defines a significant assumption, the auditor may have to identify assumptions as significant that the auditor otherwise would not have identified as significant. We believe the requirement should be clarified for the auditor to consider what management has identified as significant assumptions and have that information taken into account when auditors are identifying significant assumptions.

#### Evaluating the Reasonableness of Significant Assumptions

We support including requirements for understanding the significant assumptions underlying accounting estimates and testing those assumptions for reasonableness (which is consistent with existing standards). We believe the factors provided for evaluating the reasonableness of the significant assumptions are a good clarification; however, we would like the Board to provide clarity on how the factors for evaluation within paragraph 16 of the Proposed Auditing Standard address the

---

<sup>9</sup> See discussion on page 35 of the Staff Consultation Paper.



requirement to “test” in paragraph 09. Our interpretation is that the requirement to “test” from paragraph 09 is achieved through the actions identified in paragraph 16b that require the auditor to evaluate whether the significant assumptions are consistent with a number of factors. However, we would like the Board to clarify whether this interpretation is correct, or whether the Board has other expectations. In addition, we believe it would be appropriate to include a specific requirement to assess significant assumptions, as defined in accordance with the suggested revisions above, for management bias, individually and in the aggregate, as the assumptions may be reasonable but still be biased, especially when considered in the aggregate.

In addition, the Proposed Auditing Standard requires the auditor to evaluate whether the company has a “reasonable basis” for the significant assumptions used. The concept of reasonable basis appears in other PCAOB auditing standards, but primarily in relation to the rendering of an audit opinion. For example, AS 3101, *Reports on Audited Financial Statements*, provides that the auditor’s standard report includes “a statement that the auditor believes that his or her audit work provides a reasonable basis for his or her opinion.” Our concern is the existing uses of this terminology are quite different than how this new requirement is applied at the individual assessment of a significant assumption. In addition, “reasonable basis,” as used in the auditing standards, is aligned with the auditor obtaining reasonable assurance; however, “reasonable basis” as used in paragraph 16 of the Proposed Auditing Standard is in the context of management. As U.S. GAAP does not have any requirements that would provide insight into what “a reasonable basis” is, we believe this will result in management having differing interpretations when their auditors inquire as to the reasonable basis for their assumptions. Therefore, we request the Board to clarify the definition of “reasonable basis” as it relates to the evaluation of significant assumptions used by the company to develop an accounting estimate, or that the Board modify the wording to eliminate confusion with existing uses of this terminology.

While the factors included in paragraph 16b of the Proposed Auditing Standard for evaluating the consistency of significant assumptions may be generally helpful, we are concerned that a requirement for the auditor to evaluate the consistency of each significant assumption with all of the factors listed will be difficult to apply in practice. Also, as currently defined in the Proposed Auditing Standard, every assumption that gives rise to a risk of material misstatement would be considered a significant assumption, and therefore the requirements in paragraph 16b would be onerous for the auditor to execute and would be inconsistent with the risk assessment standards as it would eliminate the ability of the auditor to use judgment to appropriately scale the necessary audit procedures according to the perceived risk of certain assumptions. It is unclear what process the auditor would be expected to follow to define the factors and what level of detail would be expected (e.g., how much work would the auditor be expected to undertake to identify and assess “relevant industry, regulatory and other external factors” or “existing market information” beyond the overall understanding obtained as part of the auditor’s risk assessment activities performed to address the requirements of PCAOB AS 2110, *Identifying and Assessing Risks of Material Misstatement*). Any requirement for the auditor to evaluate significant assumptions should be grounded in the requirements of the applicable financial reporting framework as it is those requirements that management has to comply with (and that the company’s controls need to be designed to address).

Paragraph 17 of the Proposed Auditing Standard includes a list of factors the auditor should take into account when evaluating the reasonableness of a significant assumption based on the company’s intent and ability to carry out a particular course of action. We believe this list is generally helpful but are concerned with the auditor’s responsibility when such information does not exist. For example, the proposed requirement includes evaluating “the company’s written plans or other relevant documentation, such as budgets or minutes.” However, the company may not have formal written plans. In such scenarios, the auditor would be unable to meet the requirements of the Proposed Auditing Standard as currently written. We suggest that the lead-in sentence to the list of factors be revised to read as follows in order to consider such situations (additional text is shown using **bold underline**; recommended deletions to the text are shown using double ~~strike through~~):

When a significant assumption is based on the company's intent and ability to carry out a particular course of action, the auditor should take into account the following factors, as applicable, in evaluating the reasonableness of the assumption:

*Evaluating Audit Evidence from Events or Transactions Occurring after the Measurement Date*

We support the Proposed Auditing Standard continuing to provide for the option of testing accounting estimates by considering audit evidence that may be provided by, or in relation to, events or transactions that occur after the measurement date. We believe the proposed requirement to address audit evidence that might be provided from subsequent events or transactions that are included in paragraph 28 of the Proposed Auditing Standard could be expanded to provide additional clarity regarding the assessment of whether the audit evidence is sufficient, reliable, and relevant to the company's accounting estimate.

*Appendix A — Special Topics*

We broadly support Appendix A, "Special Topics," of the Proposed Auditing Standard that provides requirements for the auditor to perform specific procedures when auditing fair value instruments. We commend the Board for recognizing the importance of information from third-party pricing services and brokers or dealers as sources of fair value measurements for financial instruments and addressing the topic in the Proposed Auditing Standard.

When using pricing information from pricing services or from a broker or dealer, the Proposed Auditing Standard includes factors that affect the relevance and reliability of such information, including the relationship that the pricing service or broker or dealer has with the company, by which company management has the ability to directly or indirectly control or significantly influence the pricing service.<sup>10</sup> We interpret the proposed requirements to imply that the auditor would be required to perform procedures to evaluate the objectivity and independence of the source of the pricing information. We request the Board to clarify the requirements of the auditor to evaluate the relationship of the source of the pricing information with the company, including factors the auditor would need to consider to evaluate.

We note that paragraph A6 of the Proposed Auditing Standard requires the auditor to perform additional audit procedures to evaluate the process used by the pricing service when the fair values are based on transactions of similar financial instruments. We request the Board to clarify what additional procedures the auditor should perform in order to evaluate such fair value estimates.

Paragraph A8 of the Proposed Auditing Standard suggests that when pricing information is obtained from multiple pricing services, less information is needed about the particular methods and inputs used by the individual pricing services when certain conditions are met. However, one of those conditions states that prices are "reasonably consistent," taking into account "the methods used," which seems to be contradictory. We interpret this to mean that the auditor would need to obtain information to understand the methods used in order to be able to obtain less information about the methods used by the individual pricing services. We believe further clarification on this condition is necessary in order to be properly applied in practice by auditors. In addition, this condition requires that prices be "reasonably consistent." We request the Board to clarify that the prices be "reasonably consistent between the pricing services from which pricing information is obtained," as we believe it could be interpreted in other ways (e.g., consistent over a period of time versus consistent at a point in time).

*Timing of Substantive Procedures*

---

<sup>10</sup> See paragraphs A4c and A9a of the Proposed Auditing Standard.

Paragraph 05 of the Proposed Auditing Standard references AS 2301, which requires the auditor to design and implement appropriate responses that address risks of material misstatement. The Proposal includes the provision from AS 2301 that, as the assessed risk of material misstatement increases, the evidence that the auditor should obtain also increases. The evidence provided by substantive procedures depends on the mix of the nature, timing, and extent of those procedures.

Analyses have been performed into inspection findings (both generally, as well as specifically, related to auditing accounting estimates) supporting that time pressure during the year-end procedures is a relevant causal factor for audit deficiencies. We therefore believe that the Proposal should explicitly address whether and how substantive procedures to address accounting estimates can be performed as of an interim date. The appropriate approach for interim procedures might vary for different types of accounting estimates and would also be a function of the significance of the assessed risks of material misstatement; as such, flexibility in the wording used in the Proposed Auditing Standard would be necessary. This is also an area where implementation guidance could be developed to illustrate application of the requirements of the Proposal (see discussion in our overall comments for a possible approach to the development of such guidance). Generally, we believe that an appropriate approach would be for auditors to obtain a detailed understanding of accounting estimates as part of the risk assessment process and to perform procedures to evidence that understanding as of an interim date, including testing information used in developing accounting estimates and, if applicable, performing tests of the design and operating effectiveness of the related controls. In a well-controlled company, and particularly as it relates to less complex, less subjective accounting estimates, audit procedures performed at an interim date (including tests of relevant controls) should provide the basis for the auditor to perform less extensive procedures at year end (e.g., perform appropriate procedures to rollforward interim conclusions to the period end instead of performing all the work at the period end).

II. *Proposed Appendix A to PCAOB AS 1105, Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results*

As discussed in our overall comments, the requirements throughout Proposed Appendix A to PCAOB AS 1105 are confusing in the context of risk assessment and appear to contradict the PCAOB's risk assessment standards as they require the auditor to perform certain procedures based on other factors (e.g., significance of the investment), seemingly without regard for the identified and assessed risks of material misstatement. The following paragraphs illustrate specific areas in Proposed Appendix A to PCAOB AS 1105 that we believe need further clarification in order to better align the requirements with the PCAOB's risk assessment standards.

- Paragraph A1 of Proposed Appendix A to PCAOB AS 1105 states that the nature and extent of audit procedures necessary to obtain sufficient appropriate audit evidence in these situations depends on (a) the significance of the investee's financial condition and operating results to the valuation of the investment, (b) the risk of material misstatement of the associated investment, and (c) the availability of financial statements of the investee. This appears to be in conflict with the PCAOB's risk assessment standards (particularly PCAOB AS 2301), which states, "This standard establishes requirements regarding designing and implementing appropriate responses to the risks of material misstatement." We believe that the inclusion of items (a) and (c), to the exclusion of all other considerations, is inconsistent with PCAOB AS 2301.
- Paragraph A2 of Proposed Appendix A to PCAOB AS 1105 requires the auditor to read available financial statements of the investee to obtain an understanding of a variety of items. It is unclear if the auditor would be required to do this for every investment selected for testing if the valuation is based on the investee's financial condition or operating results regardless of the assessed risk of material misstatement. Paragraph A3 also includes a list of procedures the auditor is required to perform on all investments selected for testing when the valuation is

based on the investee's financial condition or operating results without a qualifier as to the assessed risk of material misstatement. Additional clarity on these paragraphs is needed to more clearly align with the risk assessment standards and demonstrate how the auditor would exercise professional judgment in determining how to scale the procedures based on the level of risk.

- Paragraph A3 to Proposed Appendix A to PCAOB AS 1105 includes a requirement in paragraph A3d for the auditor to perform procedures with respect to factors if they are reported in the investee's financial statements and are reflected in the valuation of the company's investments. This requirement also seems to contradict the principles in the PCAOB's risk assessment standards as now, according to the Proposed Appendix A to PCAOB AS 1105, the auditor is to perform procedures on such factors without regard to the risk of material misstatement associated with them or the potential impact they may have on the valuation of the company's investments. We believe the auditor should exercise professional judgment in identifying and assessing the risks of material misstatement associated with the factors reflected in the valuation of the company's investment and perform procedures responsive to the assessed risks.
- Paragraph A4 requires the auditor to perform certain procedures if the investee's audited financial statements are significant to the valuation of the company's investments. It is unclear how this requirement interacts with the identification of risks of material misstatement as the risk assessment standards require that we identify and assess risks of material misstatement<sup>11</sup> and then design and perform audit procedures in a manner that addresses the assessed risks of material misstatement.<sup>12</sup> In accordance with the risk assessment standards, we would expect the required procedures in this paragraph to be applicable when a risk of material misstatement exists but clarity is needed.

We believe the examples provided in the Proposed Appendix A to PCAOB AS 1105 for situations in which the valuation of an investment is based on the investee's financial condition or operating results greatly expand the requirements on auditors relative to the extant standards,<sup>13</sup> particularly as the requirements that follow are applied to investments in these situations provided in the Proposed Appendix A to PCAOB AS 1105.

Proposed Appendix A to PCAOB AS 1105 requires the auditor to read available financial statements of the investee to obtain an understanding of whether the audit of the investee, if the investee's financial statements were audited, indicate that the audit was performed under PCAOB standards and expressed an unqualified opinion. In instances in which the financial statements are audited under other auditing standards (e.g., the auditing standards of the American Institute of Certified Public Accountants (AICPA) or the standards of the IAASB), it is unclear as to the impact. We believe additional clarification is needed on this matter because, as currently written, this may be interpreted as an implied requirement for all investees to have audits performed in accordance with PCAOB standards, when there is no requirement for such an audit.

The requirement for the auditor to read available interim financial statements of the investee and other available information and make inquiries of the investee to identify subsequent events and transactions that could be material to the company's financial statements may pose a challenge to auditors that will be difficult, if not impossible, to overcome. It is unclear whether the auditor would obtain such information directly from the investee or the investor can provide the information to the auditor as they will, and should, have controls and processes in place to monitor such information.

---

<sup>11</sup> See PCAOB AS 2110.01.

<sup>12</sup> See PCAOB AS 2301.08.

<sup>13</sup> See PCAOB AS 2503.28-34.

Further, the definition of “available” is unclear in the requirement. Our concern is the term could be interpreted differently without further clarification. For example, available could be interpreted to mean public, generated by the company, or given to the investor; these different interpretations of “available” would result in inconsistent application of the requirements. We request the Board to provide further clarification on the definition of “available” for purposes of this requirement. As it relates to the information to be obtained by the auditor as a result of making inquiries of the investee, we are concerned with this requirement given there is no responsibility for the investee to provide complete and accurate information to the investor’s auditor on a timely basis. The note to paragraph A4b of the Proposed Appendix A to PCAOB AS 1105 provides for the auditor to perform alternative procedures to test the company’s procedures for understanding the characteristics of underlying investments and assessing the valuation process, rather than obtaining information about the audit or reviewing audit documentation when the audit is performed for an investment company. We believe this has broader applicability and should not be limited to audits of investment companies, but rather should be available to other situations in which we are performing procedures to address the risks of material misstatement related to the valuation of investments based on investee financial condition.

If the investee’s audited financial statements are significant to the valuation of the company’s investment, the auditor is required to determine whether the audit of the investee provides sufficient appropriate audit evidence by performing procedures outlined in Proposed Appendix A to PCAOB AS 1105. We request the Board to clarify the definition of “significant” in the context of this requirement as we believe it may be interpreted differently by auditors in practice. The procedures provided in Proposed Appendix A to PCAOB AS 1105 to determine whether the audit of the investee provides sufficient appropriate audit evidence require the auditor to obtain information about the procedures the investee’s auditor performed and the results thereof or review the audit documentation of the investee’s auditor. We interpret this requirement for the auditor to go beyond the report of the investee auditor on the investee’s audited financial statements and obtain additional information from the investee’s auditor regarding the procedures they performed. We believe that in some circumstances this requirement would be challenging for auditors to meet and even in situations in which the investor auditor is able to interact with the investee auditor, the nature and extent of information obtained is a matter of professional judgment and should be aligned with the significance of the assessed risks. We also believe it is unclear what “obtain information” means and whether it would be considered audit evidence.

PCAOB AS 2410, *Related Parties*, establishes requirements regarding the auditor’s evaluation of a company’s identification of, accounting for, and disclosure of relationships and transactions between the company and its related parties. Under this auditing standard, the objective of the auditor is to obtain sufficient appropriate audit evidence to determine whether related parties and relationships and transactions with related parties have been properly identified, accounted for, and disclosed in the financial statements. As such, PCAOB AS 2410 currently provides for an approach for the auditor to evaluate relationships and transactions between the company and its related parties. It is unclear why, as part of Proposed Appendix A to PCAOB AS 1105, the auditor is required to perform procedures to identify significant transactions between the company and the investee and to evaluate the accounting for and disclosure of those transaction. We propose revising this requirement to link to PCAOB AS 2410 to avoid confusion concerning what procedures would be performed as part of this requirement that are not already included in AS 2410.

### III. Proposed Amendments to the Risk Assessment Standards

#### PCAOB AS 1105

In the proposed amendments to PCAOB AS 1105, a note is added to paragraph 08 that requires the auditor to evaluate the effect of restrictions, limitations, or disclaimers on the reliability of evidence provided to an auditor by a third party if such evidence is subject to any of these matters. In applying the requirements in this proposed amendment, we believe it would be beneficial to provide additional

clarification as to what a sufficient evaluation would include, including how the auditor would be expected to determine whether the evidence was ultimately sufficiently reliable.

---

August 30, 2017

Office of the Secretary  
PCAOB  
1666 K Street, N.W.  
Washington, DC 20006-2803

**Reference: PCAOB Rulemaking Docket Matter No. 043 (PCAOB Release No. 2017-002)**

Dear Board and Staff:

We welcome the opportunity to comment on your *Proposed Auditing Standard – Auditing Accounting Estimates Including Fair Value Measurements* and proposed amendments to other PCAOB auditing standards (the “Estimates Proposal”). As the leading provider of qualified, experienced and credentialed third-party valuation support to public registrants and investment company managers, we have unique insight and experience with respect to the rigor and support preparers of financial statements utilize in estimating fair value and the scrutiny auditors apply in auditing fair value measurements.

Our role in the financial statement preparation process is distinctive. We support management in enhancing its internal control process with respect to estimating fair value, and our fair value analyses serve as an input for consideration by management in preparing its financial statements. We believe that our consultative advisory process results in more relevant and reliable fair value estimates. As such, our role is that of company-engaged (or third party) specialists, as described in the Specialists Proposal.

Our comments are derived from years of experience assisting management with its valuation estimates. In 2016 alone we performed more than 12,000 engagements for 5,000 clients, including nearly half of the S&P 500, over 70% of top tier private equity firms and 64% of Fortune 100 companies. Our professionals are deeply involved in industry efforts to enhance valuation consistency and transparency, including participation on various task forces and working groups of the AICPA and The Appraisal Foundation; on boards, such as the International Private Equity and Venture Capital Valuation Board, and the International Valuation Standards Council; and in the Fair Value Quality Initiative.

August 30, 2017

2

We have previously responded to PCAOB's Staff Consultation Paper on *Auditing Accounting Estimates and Fair Value Measurements* (2014) and the PCAOB Staff Consultation Paper on *The Auditor's Use of the Work of Specialists* (2015). We have also participated in the SAG meetings on this topic. Presently, we are also separately responding to PCAOB's *Proposed Amendments to Auditing Standards for Auditor's Use of the Work of Specialists* (the "Specialists Proposal").

Our goal in responding to the Estimates Proposal is to provide our expertise as experienced third-party valuation specialists as the PCAOB considers changes to audit standards which, in turn, will guide the accountability of auditors in exercising their role in capital markets - ensuring that financial information meets the needs of investors and is provided on a reliable, high-quality, consistent, transparent and cost-effective basis

## Key Observations

We understand that the Estimates Proposal is broader than auditing fair value estimates. Given the prominence of fair value in financial reporting and our specific expertise in assessing fair value, our comments and observations are directed specifically to auditing fair value measurements, and are written from the perspective of **experienced, credentialed, company-engaged third party specialists**.

### *PCAOB's Auditor Guidance Must Reflect Important Recent Developments Affecting Valuations for Financial Reporting*

We applaud the PCAOB's focus on risk-based auditing of fair value measurements. The Estimates Proposal, however, does not consider recent key developments affecting valuations for financial reporting purposes, which we believe will have a direct impact on advancing the quality of documentation and support for fair value estimates. The Estimates Proposal should be enhanced by incorporating reference to and giving effect to the impact to these developments. These events include the establishment of the "Fair Value Quality Initiative", tasked with the creation of a valuation professional infrastructure, the subsequent launch of the CEIV (Certified in Entity and Intangible Valuations) credential, and the pending launch of the CVFI (Certified in Valuations of Financial Instruments) credential.

The Fair Value Quality Initiative was undertaken in response to statements made by regulators (SEC) calling for increased quality and accountability of valuation specialists performing valuations for financial reporting purposes. The resulting CEIV credential (launched in January 2017) is designed for both management (company-employed) and third-party (company-engaged) valuation specialists who perform fair value measurements for financial statement reporting purposes. To obtain and maintain the credential, the valuation professional: (1) must meet rigorous qualification, as well as ongoing education and experience requirements; (2) must adhere to the requirements of a Mandatory Performance



August 30, 2017

3

Framework (MPF)<sup>1</sup>, which governs the scope of work and level of documentation; and (3) agrees to be subjected to a periodic independent Quality Control review.

Adherence to the MPF is mandatory for CEIV credential holders and is considered best practice for non-CEIV valuation specialists; the same holds for the CVFI, with an equivalent Disclosure Framework (DF). We believe that both the CEIV and CVFI credentials and related MPF and DF will further enhance the robustness and quality of company-employed and company-engaged valuation specialists' work, and will have a direct impact on the quality of documentation and support for fair value estimates. The MPF lays out detailed requirements and procedures addressing the depth of analysis and documentation necessary to prepare a professional work product that will be used by management for financial reporting purposes. This includes a critical assessment by the valuation specialist of data and projections provided by management, significant assumptions used, and other inputs to the valuation analysis, and a thorough documentation thereof. This will further enhance the quality of management's fair value assertions, and thereby will make the audit more efficient and more cost-effective, to the benefit of all parties involved.

However, notwithstanding the new valuation infrastructure in place, the new MPF/DF requirements, and the expectation that a CEIV's/CVFI's work is subject to an independent Quality Control review, we did not clearly discern that the Estimates Proposal takes advantage of the new framework and would supportively guide auditors to adjust their procedures, where appropriate, and re-define the scope of various audit efforts - including testing, reperformance and analytical procedures, or development of independent estimates – in a way that takes into account MPF/DF-compliant specialist work and documentation.

We believe that the Board should consider the results of the Fair Value Quality Initiative which was undertaken at the behest of the SEC.

#### *Risk of Unnecessarily Expanding Audit Procedures*

As previously noted, we support the “risk-based” approach to auditing fair value measurements. However, the wording of the Estimates Proposal, as currently drafted, is subject to broad interpretation which may result in even greater incremental, and at times duplicative, auditor effort when auditing fair value measurements.

The MPF/DF covers many, if not all, of the key concepts identified in the Estimates Proposal with respect to what auditors should be looking for in assessing management's fair value estimates. We are concerned that failing to reflect the impact of the MPF/DF in the Estimates

---

<sup>1</sup> The *Mandatory Performance Framework* document, and its companion document, the *Application of the Mandatory Performance Framework*, collectively referred to as “MPF” for the purpose of this letter, can be located here: <https://ceiv-credential.org/mandatory-performance-framework-and-application/>

August 30, 2017

4

Proposal could lead to unnecessarily expanding audit procedures and could potentially increase overall costs with little additional benefit.

An experienced and credentialed company-employed or company-engaged valuation specialist complying with the new MPF/DF should be able to develop relevant and reliable fair value estimates. Auditors can and should test the company's process - which may utilize engaged specialists, as applicable - to develop such estimates. However, when such testing by the auditor demonstrates that management's fair value assertions are reasonable, and credentialed company specialists were part of the process, providing consultative support, the auditor should not feel compelled to extend testing. The current draft may inadvertently encourage auditors to unnecessarily expand the audit approaches utilized (Proposed Auditing Standard AS 2501 paragraph .07). By referencing the MPF/DF and applicable certifications, the Estimates Proposal could provide better guidance and confidence to auditors in making their risk-based judgments, and thereby establishing the extent of testing required.

The increase in costs in the system may be pervasive and far-reaching, as there may be a spillover effect on private company audits as well. It would be difficult to conceive that an auditor would behave differently and exercise a different level of skepticism and professional care in a public vs. a private company audit, even though separate audit methodologies may be maintained.

#### *Risk of a Decrease in the Overall Quality of Financial Reporting*

The audit guidance in the Estimates Proposal should communicate a clearer recognition of the beneficial, value-adding, time- and cost-saving impact on the audit process of a qualified and credentialed company specialist, who complies with performance standards, and is subject to independent Quality Control and a code of professional conduct and ethics.

We believe that the Board's intent is to improve audit quality in a cost-effective manner, so as to benefit investors and promote investor protection. However, if the auditor is generally encouraged, expected, or feels obliged to perform more procedures and incur more effort, regardless of the involvement of a qualified company specialist, this could shift the balance between the work of the company specialist and the auditor specialist (as acknowledged in the Specialists Proposal) with negative effects, including degradation of the output of the internal control environment, and potential impairment of auditor independence.

We recognize that management earnestly exercises its responsibility to prepare GAAP-compliant financial statements providing users with relevant and reliable financial information. However, if faced with the prospect of increasing audit scope and costs, situations may arise where management may feel compelled to invest less time, cost and effort in supporting certain assertions in the financial statements by not engaging a specialist when one would otherwise be called for - especially given the expectation that the auditor's specialist would perform extensive testing and calculations as part of the audit.

August 30, 2017

5

This outcome could decrease the quality of financial reporting and may also create situations in which auditor independence could be deemed impaired because the auditor's specialist is de facto providing management with estimates, which the auditor must review and audit.

Overall, these factors pose a risk of creating an environment that not only does not meet the PCAOB's objectives in the rewriting of this standard, but also fails to foster the best outcome for investors.

*Credentialed Company Specialist MPF/DF Compliance Should Enable Auditors to Appropriately Adjust their Scope of Work*

Auditors' risk assessment and audit scope should consider management's and its company specialists' compliance with the MPF/DF in developing fair value estimates, and auditors should be able to tailor their procedures accordingly.

MPF/DF compliance directly impacts the specialists' *scope of work, depth of analysis and documentation* as it relates to fair value measurements, and a CEIV/CVFI credential further signals that the specialist's work may be subject to an independent Quality Control review by the organization issuing the specialist's credential. These are key safeguards of valuation quality that should be made explicit in the Estimates Proposal - and should be considered as significant factors in the auditors' risk assessment and resultant scope of work.

*Company Specialists - and Particularly Company-Engaged Specialists - are an Enhancement to Management's Internal Control Process*

As previously noted, management is responsible for the assertions contained in the financial statements and cannot relinquish this role to a third party. However, management can enhance its process by obtaining consultative advice from experienced valuation specialists.

Typically, management has sought assistance from third party valuation specialists in complying with financial reporting requirements related to business combinations, impairment testing and share-based compensation, among others. Additionally, it has become best practice of the largest private equity and hedge fund investment managers to validate fair value estimates using a qualified, experienced third party valuation specialist. Investors have come to rely on enhanced internal control systems which appropriately include specialized valuation expertise. In these situations, the valuation specialist is engaged to assist management, by providing consultative advice, in fulfilling management's responsibility of supporting the assertions included in the financial statements.

As such, management should not be put at a disadvantage for using qualified and credentialed company-engaged or company-employed specialists. The prospect of a broadly increased audit mandate (issues previously discussed) despite the use of qualified company

August 30, 2017

6

specialists (employed and/or engaged) seems to be at odds with such an internal control enhancement that management has traditionally utilized.

### *Presumption of Bias*

We think that the presumption of bias is over-emphasized in the Specialists and Estimates Proposals, collectively. When a professional (in this case, an auditor) has a questioning mind and applies a healthy degree of professional skepticism in performing his/her job, it does not imply that the subject or party to the inquiry (management) is inherently biased.

Professional skepticism (which includes evidential skepticism and self-skepticism) is an attitude, rather than a verdict on the character or actions of those to which the inquiry is addressed. Overemphasizing the potential for any bias, against the backdrop of an already robust PCAOB inspection process, and existing robust review procedures of the work of company specialists, could lead to behavior that is reactionary and results in unnecessarily expanding audit procedures with arguably little incremental benefit. Management has a duty of care, engaged specialists abide by duty of care and ethics standards, as do auditors. The current tone may inadvertently promote a negative perception that management and its employed or engaged specialists will always be biased against exercising proper care. Such a premise is without general merit.

The benefit of professional skepticism and the instruction to rely on persuasive evidence can be highlighted without casting management, specialists, or auditors in a negative light. Professional skepticism is also consistent with the approach taken by the MPF/DF and reflected in the work performed by the CEIV- (or CVFI-) credentialed company-employed or company-engaged specialist.

### *Conclusion*

We appreciate the opportunity to comment on the Estimates Proposal. We fully support the Board's efforts to set standards that result in high quality audits.

We believe that without appropriate amendments, in the current regulatory and financial reporting environment, the proposed guidance in the Estimates Proposal (and the companion Specialists Proposal) will likely lead to auditors significantly and unnecessarily expanding procedures, with limited incremental benefit. Thus, we urge the PCAOB to reconsider certain aspects of the guidance, and the overall tone and direction of the Estimates and Specialists Proposals, collectively.

August 30, 2017

7

\*\*\*

Subject to our foregoing comments, in *Appendix A below*, we have provided comments, by paragraph, on the proposed amendments in Appendix 1 (AS 2501) of the Estimates Proposal. In *Appendix B below*, we have also provided responses to certain specific questions posed in the Estimates Proposal.

\*\*\*

We would be pleased to further discuss our comments with the PCAOB staff. Please direct any questions to any of us via the contact information set forth below.

Sincerely,



---

Paul Barnes  
Managing Director, Global Leader  
Valuation Advisory Services

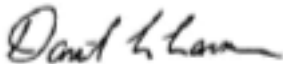
paul.barnes@duffandphelps.com  
T: +1 215 430 6025  
F: +1 215 240 6324



---

Greg Franceschi  
Managing Director, Global Leader  
Financial Reporting Practice and Office of  
Professional Practice

greg.franceschi@duffandphelps.com  
T: +1 650 798 5570  
F: +1 650 539 5808



---

David Larsen, CPA, ABV, CEIV  
Managing Director  
Portfolio Valuation

david.larsen@duffandphelps.com  
T: +1 415 693 5330  
F: +1 415 644 5618



---

Marianna Todorova, CFA, CEIV  
Managing Director  
Office of Professional Practice

marianna.todorova@duffandphelps.com  
T: +1 212 871 6239  
F: +1 917 267 7019

## Appendix A

### Specific Comments on Proposed Auditing Standard AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*

#### Paragraph .07.

We are concerned that the wording of paragraph .07 could lead to over-auditing, as many auditors may decide to apply all three approaches to avoid being second-guessed by inspectors. We believe this risk could be mitigated if the wording were modified similar to the following:

*.07 In performing substantive procedures to respond to the identified and assessed risks of material misstatement associated with accounting estimates, the auditor should test an accounting estimate by assessing the company's process used to develop the accounting estimate (see paragraphs .09-.20 of this standard). In the steps the auditor undertakes to evaluate the company's process, consideration should be given to recognized performance standards that the company or its engaged specialists have complied with, in connection with developing the accounting estimate.*

*If the auditor deems that management's process, including the impact of a qualified specialist, does not provide reasonable support for the estimate, then the auditor should consider developing an independent expectation for comparison to the company's estimate (see paragraphs .21-.26 of this standard) (care should be taken such that the auditor does not inadvertently provide the estimate for use by management). If appropriate, depending on the nature of the estimate, evaluate audit evidence from events or transactions occurring after the measurement date related to the accounting estimate for comparison to the company's estimate (see paragraphs .27-.29 of this standard).*

Otherwise, as this section is currently drafted in the Estimates proposal, there is a risk that auditors will choose to perform all three substantive approaches outlined in the draft, absent language advising more explicitly that there is no need to apply more than one approach, and certainly no need to apply all three approaches.

Thus, even though the proposal does not require the auditor to use all three approaches, against the backdrop of an already robust PCAOB inspection process, the ambiguity as to which of the three substantive approaches should be used could lead to unnecessarily expanding audit procedures with arguably little incremental benefit.

**Paragraph .12.**

*.12 AS 1105, Audit Evidence, requires the auditor, when using information produced by the company as audit evidence, to evaluate whether the information is sufficient and appropriate for purposes of the audit by performing procedures to: (1) test the accuracy and completeness of the information or to test the controls over the accuracy and completeness of that information, and (2) evaluate whether the information is sufficiently precise and detailed for purposes of the audit.*

We recommend adding a footnote to clause (1) above which states:

*“For example, with respect to fair value measurements, management’s controls and process should be consistent with the Fair Value Quality Initiative’s MPF/DF, which will impact the extent of additional testing required by the auditor.”*

And,

*“The auditor should consider, in setting the scope of audit procedures and determining the extent of testing required, if the fair value estimate has been developed in compliance with the MPF/DF, in which case the development of an independent estimate may not be required.”*

For reference, the MPF states (MPF, par. 2.17):

*“When evaluating management-generated and management-provided information, the valuation professional must consider the experience of management and the sufficiency of the documentation and analyses provided by management throughout the valuation engagement. The valuation professional should not presume management is biased; however, the valuation professional should not accept and rely on less-than-persuasive evidence because the valuation professional believes management is unbiased. This requirement extends to third-party specialists retained by management, their competence, and the sufficiency of their work product.”*

Additionally, the MPF requires an assessment of whether the company’s prospective financial information (PFI) is representative of expected value and properly supported, and requires its evaluation for reasonableness in general, as well as in specific areas. For example, factors and common procedures to consider when assessing PFI may include, but are not limited to:

- Comparison of PFI for an underlying asset of the subject entity to expected values of the entity cash flows.
- Frequency of preparation.
- Comparison of prior forecasts with actual results.
- Mathematical and logic check.
- Comparison of entity PFI to historical trends.
- Comparison to industry expectations.
- Check for internal consistency.



**Paragraph .27, footnote 22.**

We recommend making the following edit, to appropriately reflect one of the concepts underlying fair value measurements:

*Evaluating audit evidence from events or transactions occurring after the measurement date, as contemplated in this standard, is a substantive test and thus differs from the review of subsequent events performed pursuant to AS 2801, Subsequent Events. See also paragraph .11 of AS 1015, Due Professional Care in the Performance of Work (as proposed to be amended – see Appendix 2), which provides that the auditor's evaluation of accounting estimates is to be based on information that could reasonably be expected to be available through the date of the auditor's report, or for fair value measurements, information that was known or knowable at the measurement date.*

**Other Specific Comments****Page A3-18, par. 4, Company's use of a Specialist or Third-Party Pricing Service**

We have the following observations:

- When auditing fair value estimates, the Board should consider differentiating between a company-employed or company-engaged valuation specialist, a pricing service (which in certain contexts may be considered a specialist), and a broker providing quotes (not considered a specialist). Values received from pricing services (data aggregators) and brokers should be evaluated for their relevance and reliability and whether they meet the ASC 820 fair value framework requirements. Prices and quotes should be contemporaneous and actionable or reflective of recent orderly transactions. If pricing service prices or broker quotes are not reflective of a traded price (an offer to buy or sell), they should be augmented by other valuation support. Informed judgment is required to identify market participant assumptions.
- Reference to the MPF/DF with respect to fair value measurements would make the requirements clearer. Further, it should be acknowledged that for some fair value estimates, a reasonable fair value range may exceed materiality. Applying additional auditing procedures will generally not reduce the reasonable range depending on the applicable market participant assumptions.
- Finally, when management uses a company-employed or company-engaged specialist, the auditor should be able to take "credit" for the enhanced reliability of the resultant fair value estimates, when assessing management's valuation process and its sufficiency in providing audit evidence.



## **Appendix B**

### **Responses to Certain Specific Questions**

#### **Question:**

- 1. Does the discussion of the reasons to improve auditing standards sufficiently describe the nature of concerns related to auditing accounting estimates that the Board should address? Are there additional concerns that the Board should seek to address?**

#### **Response**

The reasons for improving auditing standards are well articulated. However, we are concerned that the Estimates Proposal may result in unnecessarily expanding audit procedures, increasing cost, with little corresponding benefit.

#### **Question:**

- 3. Are there additional changes needed to improve the quality of audit work related to accounting estimates that the Board should include in its proposal?**

#### **Response**

As noted in our general comments, the proposed standard should reference the Fair Value Quality Initiative, the new valuation credentials, and the applicable valuation MPF/DF frameworks. We acknowledge that such reference is applicable to auditing fair value measurements, and that corresponding credentials may be applicable with respect to auditing other estimates.

However, given the prominence of fair value measurements in the proposed standard, we believe that the PCAOB should consider the results of the Fair Value Quality Initiative which was undertaken at the behest of the SEC. In addition, it would be appropriate for the auditor's specialist to have the same or similar credentials to those of company's specialists (for example, a CEIV/CVFI credential, if auditing fair value measurements).

#### **Questions:**

- 8. The Board requests comment generally on the potential benefits to investors and the public. Are there additional benefits the Board should consider?**
- 11. The Board requests comment generally on the potential unintended consequences of the proposal. Are the responses to the potential unintended consequences discussed in the release adequate? Are there additional potential**

**unintended consequences that the Board should consider? If so, what responses should be considered?**

**Response**

Users of financial statements benefit when the quality of financial information is enhanced. Management should be encouraged to follow practices such as the MPF/DF and utilize experienced, knowledgeable and credentialed support where applicable. When management's internal control process is enhanced by the consultative expertise of qualified, credentialed specialists, the quality of information increases and benefits users of the financial statements.

Investors will also benefit if the audit standards appropriately recognize the safeguards of valuation quality (e.g., credentials specifically for financial reporting, valuation performance standards), so as to give auditors confidence in their risk assessment and enable them to adjust their audit scope and procedures, where appropriate.

However, as discussed under Key Observations earlier in this letter, the proposal as drafted may encourage auditors to unnecessarily expand audit procedures, and lead to an increase in costs with little corresponding benefit. Failing to reference the Fair Value Quality Initiative may not be supportive of management improving the reliability of fair value measurements.

When management's internal control process is enhanced by the consultative expertise of qualified and credentialed company specialists, this should not result in increased audit costs or expanded audit requirements. If audit standards do not allow auditors to accept (after proper testing) the strength of management's estimation process, but encourage auditors to expand audit procedures, it is possible that management will seek to offset the increased audit cost by reducing the strength of the internal control processes, with negative consequences.

**Question:**

**13. Are there additional economic considerations associated with this proposal that the Board should consider? If so, what are those considerations?**

**Response**

We believe that when the provisions of the Fair Value Quality Initiative are followed, management will derive and document fair value measurements with greater rigor than in the past. As such, auditors will be able to assess management's fair value process and conclusions more efficiently, enhancing the overall quality of the audit while potentially reducing audit costs. To achieve these economic savings the PCAOB should more directly recognize the Fair Value Quality Initiative and its related benefits within the auditing standards.

**Question:**

- 19. Should the proposed standard limit the auditor's selection of an approach and, if so, under what circumstances?**

**Response**

Yes. When the auditor has tested the company's estimation process used to develop the accounting estimate, and the process is deemed reasonable, the standard should allow the auditor to complete their procedures. The current draft may inadvertently encourage auditors to extend their audit procedures by coming up with their own fair value estimate and evaluating subsequent event information, even when the company's process and results have been deemed to be reasonable. Unnecessarily expanding audit procedures could increase overall costs with little additional benefit. Further, the concept of evaluating subsequent events (using hindsight) may be incongruent with the premise of fair value, which is forward looking.

Also, please see in *Appendix A* of this letter our suggested edits to par. 07 of the proposed AS 2501.

**Question:**

- 20. Are the proposed requirements for evaluating the company's method used to develop accounting estimates clear? Are there other matters that are important to evaluating a method that should be included in the proposed requirements?**

**Response**

The Estimates Proposal does not appear to give "credit" in the company's process or method of determining fair value for complying with the MPF/DF and using company-employed or company-engaged valuation specialist. The use of an employed and/or engaged specialist can enhance the reliability of management's estimates.

Additionally, as noted in our response to the companion Specialists Proposal, we have the following comments which are also pertinent considerations in the audit of fair value estimates: we believe that further distinction could be made between company-employed and company-engaged specialists in the risk assessment process, as there is a meaningful difference between the two. In addition to the engaged specialist being a third party - which would presumably affect the reliability of management's assertions supported by such specialist's work from an audit perspective – a company-engaged specialist is specialized and occupied full-time in valuation.

**Question:**

- 21. Are there any further requirements regarding testing internal data or evaluating the relevance and reliability of external data that the Board should consider?**

**Response**

With respect to Fair Value Measurements, data and testing of data should reflect market participant assumptions. Management and auditors should ensure that the data being used is consistent with the accounting standard (ASC Topic 820), which requires judgment in assessing certain market participant inputs.

**Question:**

- 22. Are the proposed requirements to evaluate whether data was appropriately used by the company clear? Are there other criteria the auditor should assess to make this evaluation? If so, what are they?**

**Response**

With respect to Fair Value Measurements, the requirements could be made more clear if the MPF/DF was complied with. The MPF, for example, dictates the documentation requirements for ensuring that inputs such as prospective financial information are supported. Further, as previously noted, such inputs should reflect market participant assumptions.

**Question:**

- 23. Are the proposed requirements for the auditor to identify significant assumptions and to evaluate whether the company has a reasonable basis for significant assumptions used clear? Do those requirements pose any practical difficulties and, if so, how could the proposed standard be revised to address those difficulties?**

**Response**

To be relevant, fair value measurements require the application of informed judgment with respect to market participant assumptions and with respect to inputs used (observable and unobservable). In many cases, the most relevant fair value measurement is derived from unobservable inputs. The audit standard should acknowledge the fact that a reasonable range of fair value requires the application of informed judgment by management and by the auditor.

**Question:**

- 24. Are the proposed requirements described above for developing an independent expectation clear? Are there other matters relevant to the proposed requirements that the Board should consider?**

**Response**

The Board should clarify those situations where developing an independent expectation of the estimate would be appropriate. Otherwise there is a risk that auditors will always feel the need to come up with an independent assessment of value, even when management has demonstrated a reliable valuation process and has used a qualified employed or engaged specialist.

Further, there is a risk that auditors could impair their independence when coming up with their own estimate for more than confirmatory evidence.

**Question:**

- 25. Is the proposed requirement that the auditor have a reasonable basis for the assumptions and method used when the auditor independently derives assumptions, or uses his or her own method in developing an independent expectation, clear? Are there other matters relevant to the proposed requirement that the Board should consider?**

**Response**

The auditor should have a reasonable basis for the assumptions and methods they use. However, when management has a strong estimation process, following the MPF and utilizing an experienced, knowledgeable, credentialed specialist, there may not be a need for the auditor to develop their own estimate. In situations where they do derive their own estimate of fair value, it should be as a corroborating technique. Otherwise the auditor runs the risk of impairing their independence as previously noted.

**Question:**

- 28. Are the proposed requirements for developing an independent expectation when using the company's data, assumptions, or methods clear?**

**Response**

The proposed requirements are clear. What is less clear is whether or not the auditor should be developing their own estimate, and for what purpose. If the auditor has obtained sufficient evidence that management's process and results are reasonable, there may be no need for the auditor to develop their own estimate.

**Question:**

- 30. Are there additional factors that the auditor should take into account when evaluating the relevance of the audit evidence obtained from events or transactions occurring after the measurement date?**

**Response**

Yes. The Board may wish to add cautionary language with respect to fair value estimates. Fair value measurements are derived from information that would be known or knowable to a market participant at the measurement date. In some cases, subsequent events, and more importantly subsequent transactions, may not have been known or knowable and therefore should not impact the fair value measurement at the measurement date.

**Question:**

- 31. Are there other matters relevant to financial instruments that should be considered or included in Appendix A of the proposed standard?**

**Response**

As previously noted, the standard should encourage the use of the MPF, and the involvement of a CEIV or CVFI credential holder, to enhance the quality of fair value measurements. Further, when management demonstrates that it has a process which generates reasonable fair value estimates, audit standards should not encourage the auditors to expand the nature and extent of their testing. Furthermore, the standard should encourage that the auditor specialist also has the CEIV or CVFI credential.

**Question:**

- 33. Are there other sources of pricing information for financial instruments that should be addressed in the proposed standard?**

**Response**

No. The standard should clearly articulate that pricing services or broker quotes must be based on actual, contemporaneous and executed or executable transactions. Otherwise, support for fair value measurements should be derived from a model, often using an employed or engaged valuation specialist with appropriate experience and credentials.

**Question:**

- 34. Are the requirements for using information from a pricing service clear? Are there other requirements that should be considered? For example, are there other methods used by pricing services to generate pricing information that are not currently addressed in the proposed standard?**

**Response**

For Pricing Service data to be relevant and reliable, management and the auditor must be in a position to determine that the reported prices are contemporaneous and from orderly transactions reflecting a similar quantity of the financial instrument.

**Note:** While blockage discounts are prohibited under ASC Topic 820, it should be noted that the price of a single private bond may deviate substantially from the price of 100,000 of the same bond. The unit of account for 100,000 non-actively traded bonds may be 100,000 bonds. A pricing service price for a recent trade of a single bond may not be relevant or reliable for 100,000 bonds.

Additionally, while blockage discounts are not permitted, illiquidity discounts (for a single instrument unit of account) are permitted if market participants would consider them. As a result, it is exceedingly challenging to use, interpret or audit pricing service or broker quotes without fully understanding how such prices and quotes are derived. Prices from actual transactions for a given quantity of financial instruments may invariably reflect the impact of blockage – be it a discount or a premium.

**Question:**

- 37. Are there other characteristics affecting the relevance and reliability of evidence provided by a broker quote that the proposed standard should include?**

**Response**

Similar to our response under 34 above, broker quotes should be contemporaneous and actionable. They should represent the price at which the broker is willing to transact, reflecting the transaction quantity. Non-binding indications of possible value do not provide sufficient evidence of fair value for management or for the auditor.

**Question:**

- 38. Are there additional factors that the auditor should take into account when evaluating the reasonableness of unobservable inputs?**

**Response**

Unobservable inputs should be congruent with market participant assumptions for the financial instrument being valued. Unobservable inputs in some situations may be

more qualitative and in other situations may be quantitative. Of greatest importance in deriving a relevant and reliable fair value measurement is understanding and using appropriate market participant assumptions.

From a risk-based audit perspective, the fact that in some cases unobservable inputs provide the most relevant fair value measurement highlights the need to provide greater emphasis on management's valuation process than on the specific inputs used. When management complies with the requirements of the Fair Value Quality Initiative and as appropriate, utilizes the services of appropriate qualified, credentialed company specialists, management's process can be more effectively assessed by the auditor.

**Question:**

- 39. Are the proposed requirements for evaluating audit evidence regarding the valuation of investments based on investee financial condition or operating results clear?**

**Response**

No. Fair value measurements are derived from market participant assumptions. Market participants may not rely on the financial statements of the subject company, or may make adjustments to historical results or projections of the subject company. The Estimates Proposal and amendments to other standards should reflect the need to focus on market participant assumptions, and not on other data that a market participant would not use in coming to their estimate of fair value.

**Question:**

- 40. Does the proposed alternative approach for audits of certain investment companies represent a significant change in practice for those audits? If so, how? Is that alternative approach applied in other circumstances? If so, what are those circumstances?**

**Response**

The proposed alternative approach would be more clear if it referenced AICPA TIS 2220 which provides guidance on estimating fair value for a fund interest using NAV. The current wording may be misunderstood, resulting in an audit scope that is arguably either unnecessarily broad, or too narrow.



**Question:**

- 41. Are there other matters relevant to understanding the process used to develop accounting estimates that could be included in the risk assessment standard?**

**Response**

Yes. In addition to understanding whether management has used a company-engaged specialist, consideration should be given to the knowledge, experience and credentials of that company-engaged specialist. Further, a qualified, experienced, knowledgeable, credentialed company-engaged specialist would generally enhance management's valuation process and the resultant quality of management's valuation assertions.

Consideration should also be given to whether or not management's valuation process is consistent with the MPF or the DF, as applicable.



**Environmental Risk Communications, Inc.**  
2121 Tunnel Road  
Oakland, CA 94611  
(510) 548-5570

August 30, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

Ref: PCAOB Docket 043 (Auditing Accounting Estimates, including FVM), and  
PCAOB Docket 044 (Auditor's Use of the Work of Specialists)

For Docket 043, I request deletion of the word “remediation” from AS 2401.54; for Docket 044 (Release 2017-003) in Figure 2, I also request deletion of the word “remediation”. My justification is to include other subtypes of environmental liabilities (asset retirement, commitments, guarantees) that do not contain remediation spending; while AICPA SOP 96-1 (1996) was titled “environmental remediation liabilities”, the definition of asset retirement obligations in 2001 and recent emergence of financial assurance guarantees show that material environmental liabilities have not been intrinsically limited to remediation.

For both Docket 043 and 044, I propose a standardized cover page (next page) for estimate parameters; this step ensures the thinking process is highly visible and auditable.

Otherwise, these documents have my full support in all respects.

Cordially,

John Rosengard  
President

Ref: PCAOB Docket 043 (Auditing Accounting Estimates, including FVM), and  
PCAOB Docket 044 (Auditor's Use of the Work of Specialists)

**Standardized cover page for estimate parameters**

*ASTM and AACEI citations are relevant to environmental liabilities.*

<b>Estimate Parameter</b>	<b>Value(s) Used (examples)</b>	<b>Source or Justification (examples)</b>
1. Inflation rate applied to future costs	x.xx%/year	US Federal Reserve System: Monetary Policy Report June 2015
2. Nominal discount rate applied to pacing of spending	x.xx%/year	White House OMB Circular No. A-94, Appendix C, 15-year rate; November 2016
3. Duration of environmental liability spending	n years	<i>“Comparable sites complete all phases of work in 10-15 years”</i>
4. Purpose of the estimate (feasibility, provision, fair value measurement, captive insurer funding, budgeting, acquisition/divestiture, cashout)	See ASTM E2137-16 ¶1.1	<i>“Validation of the current provision is the only active purpose”</i>
5. Level of effort applied to estimate, as rough order of magnitude (10, 100, 1000 hours)	1 hour	<i>“Meant to be peer review of units and prices in previous year’s estimates for four locations”</i>
6. Turnaround time of estimate	1 day	<i>“unplanned cost engineering task”</i>
7. Comparable liabilities evaluated	Site a, site b, site c	<i>“These liabilities have waste streams which are common to this industry; an active marketplace exists for remediation”</i>
8. Cost Estimate Class of estimate	Class 1 to 5, per AACEI 56R-08 (2012), Table 1, <i>Cost Estimate Classification System</i>	<i>“Class 5, based on analogues and estimator’s parametric model; owner lacks current scientific data and regulatory framework to create Class 3 or 4 estimate”</i>
9. Fair Value Measurement Class of estimate	Class 1 to 3	<i>“Class 2; 95% of estimate is based on common carrier trucking rates (which track a diesel fuel price index) and published landfill rates”</i>
10. Exclusions from estimate	See ASTM E2137 (2016), Table 1, <i>Examples of Environmental Costs and Liabilities</i>	<i>“NRDA claims deemed immaterial from outset, no evidence to the contrary”</i>

Phoebe W. Brown, Secretary  
Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803

30 August 2017

**Re: Proposed Auditing Standard on Auditing Accounting Estimates, Including Fair Value Measurements, and Related Amendments to Certain PCAOB Auditing Standards, PCAOB Rulemaking Docket Matter No. 043**

Dear Ms. Brown:

Ernst & Young LLP (EY) is pleased to submit these comments to the Public Company Accounting Oversight Board (PCAOB or Board) on proposed auditing standard, *Auditing Accounting Estimates, Including Fair Value Measurements*, and related amendments to other standards (collectively, the Proposal). We support the PCAOB's efforts to strengthen the requirements for auditing accounting estimates, and we believe many of the proposed changes would improve the quality of auditing in this area.

We also appreciate that the Board is monitoring developments related to the International Auditing and Assurance Standards Board (IAASB) exposure draft of Proposed International Standard on Auditing 540 (Revised), *Auditing Accounting Estimates and Related Disclosures* (ED-540). We encourage the Board to work with the IAASB to develop a single approach to auditing estimates or at least minimize the differences between any final standards. We believe audit quality would be promoted with a single framework to audit estimates.

Our comments below focus on the following areas where we believe the Proposal could be improved or made more practical:

- ▶ Proposed Auditing Standard (AS) 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*
- ▶ Proposed Appendix A to Proposed AS 2501, *Special Topics* (Proposed Appendix A to AS 2501)
- ▶ Proposed Appendix A to AS 1105, *Audit Evidence*, Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results (Proposed Appendix A to AS 1105)
- ▶ Other matters

In each section of this letter we highlight our key areas of concern and propose alternatives. The appendix to this letter contains our other observations.

## **Proposed AS 2501: Auditing Accounting Estimates, Including Fair Value Measurements**

### **Considerations relating to management bias**

Paragraph .03 of the Proposal would require the auditor to obtain sufficient appropriate audit evidence to determine whether accounting estimates “are free from bias that results in material misstatement.” We recognize the Board’s intent to further emphasize the importance of the consideration of management bias in the estimates standard and go beyond the requirements in AS 2401, *Consideration of Fraud in a Financial Statement Audit*, and AS 2810, *Evaluating Audit Results*.

We believe that the auditor’s objective when auditing accounting estimates should be to obtain sufficient appropriate audit evidence to provide reasonable assurance that the estimate is reasonably stated and free from a material misstatement and has been accounted for and disclosed in conformity with the applicable financial reporting framework. In our view, AS 2401, AS 2810 and the requirements included in the Proposal adequately set forth the requirements for the auditor’s assessment and response to the risk of management bias in accounting estimates.

We are concerned that including bias as an explicit objective in any final standard could imply that the auditor is required to point to specific evidence to support the conclusion that the objective was met. In our view, management bias is an important consideration for the auditor when performing his or her risk assessment and in executing procedures to evaluate whether the estimate is reasonably stated and free of material misstatement. Management bias is a key input to the design and performance of the auditor’s procedures, but in and of itself should not be a specific objective. We believe the Board should remove the reference to bias in the objective.

### **Developing an independent expectation**

Proposed paragraph .25 states that “if the auditor’s independent expectation consists of a range rather than a point estimate, the auditor should determine that the range is appropriate for identifying a misstatement of the accounting estimate and supported by sufficient appropriate audit evidence.” We agree with the Board that it is important for the auditor to focus on determining that a range of estimates is supported by sufficient appropriate audit evidence. However, it is not clear to us how auditors would “determine that the range is appropriate for identifying a misstatement of the accounting estimate.”

We believe the Board should clarify its intent on this point. For example, we do not believe it would be appropriate that this phrase imply that a range of reasonable estimates cannot exceed the auditor’s materiality threshold. This situation is not uncommon, particularly when the estimation uncertainty is high, and in some cases the range of acceptable outcomes may significantly exceed the auditor’s materiality threshold. We recommend that the Board clarify the phrase “appropriate for identifying a

misstatement” and state that a range could be greater than the auditor’s materiality threshold, assuming that the range only includes amounts supported by sufficient appropriate audit evidence.<sup>1</sup>

### Significant assumptions

We recommend eliminating the note to proposed paragraph .15, which states “if the company has identified significant assumptions used in an accounting estimate, the auditor’s identification of significant assumptions should also include those assumptions.” We are not aware of any requirements for management to designate assumptions as significant. Instead, management typically has controls in place to review all relevant assumptions.

Because “significant assumption” is not defined for management, we believe this requirement could create unnecessary confusion. For example, it could increase the number of assumptions that the auditor must identify as significant, even if it does not agree with management’s assessment, resulting in the performance of unnecessary audit procedures in areas of lower risk. If auditors are able to demonstrate that an assumption is not significant (based on the factors provided in paragraph .15), we believe they should not be required to identify the assumption as significant solely because management did.

In addition, proposed paragraph .18 would require, for critical accounting estimates, the auditor to “obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect.” We believe it would be more appropriate to align the requirement more closely with the auditor’s risk assessment (e.g., by requiring the auditor to obtain this understanding for estimates affected by significant estimation uncertainty).

### Evaluating the company’s methods

Proposed paragraph .10 would require auditors to evaluate whether the methods used by the company to develop the accounting estimates are appropriate for “the business, industry and environment in which the company operates.” We don’t believe the PCAOB should require a separate evaluation of these factors. Instead, we believe the auditor should consider these factors when evaluating the appropriateness of the company’s method. We believe the proposed requirement, as written, could lead auditors to expect that all companies in an industry should use the same methods of estimation. Therefore, we recommend the following edit to proposed paragraph .10:

.10 The auditor should evaluate whether the methods used by the company to develop accounting estimates are:

- a. In conformity with the requirements of the applicable financial reporting framework; and

---

<sup>1</sup> We also observe that the IAASB includes the following guidance in paragraphs 20 and A134 of ED-540, which we support: 20. If the auditor concludes that it is appropriate to develop an auditor’s range, the auditor shall only include in that range amounts that (a) are supported by the audit evidence; and (b) the auditor has evaluated to be reasonable in the context of the measurement objectives and other requirements of the applicable financial reporting framework. A134. In certain circumstances, the auditor’s range for an accounting estimate may be multiples of materiality for the financial statements as a whole, particularly when materiality is based on operating results (for example, pre-tax income) and this measure is relatively small in relation to assets or other balance sheet measures. In these circumstances, the auditor’s evaluation of the reasonableness of the disclosures about estimation uncertainty becomes increasingly important. Considerations such as those included in paragraphs A133, A144 and A145 may also be appropriate in these circumstances.

- b. Appropriate for the nature of the related account or disclosure, considering ~~and~~ the business, industry, and environment in which the company operates.

#### **Considerations when more than one substantive approach is used**

The Proposal describes the procedures an auditor should perform to test an accounting estimate under each of the three approaches identified in proposed paragraph .07. However, it does not explain how auditors would adjust their procedures when using a combination of the approaches, which is common in practice.

For example, the auditor may use its independent estimate in combination with evidence provided by testing the company's process. While the Proposal recognizes that the auditor may use any of the three approaches individually or in combination, we believe it could better describe (1) the expectations for the auditor's performance when the methods are used in combination and (2) considerations for the auditor's evaluation of evidence.

#### **Auditor's responsibilities**

Guidance in AS 2502, *Auditing Fair Value Measurements and Disclosures*, states "The auditor is not responsible for predicting future conditions, transactions, or events that, had they been known at the time of the audit, may have had a significant effect on management's actions or management's assumptions underlying the fair value measurements and disclosures." We believe inherent uncertainty associated with the determination of amounts and disclosures related to estimates is an important concept that should be recognized in the PCAOB's auditing standards. We recommend this guidance be retained in any final standard and that it apply to all accounting estimates, including fair value measurements.

#### **Proposed Appendix A to Proposed AS 2501 – Special Topics**

We appreciate the Board's efforts to address the unique audit considerations related to pricing information from third parties, and we support the development of the special topics appendix to Proposed AS 2501. However, we have concerns about the proposed requirements regarding the auditor's ability to understand and evaluate the methods and inputs used by pricing services at a group level (e.g., by asset class), as well as the conditions that must be met in order to obtain less information about the particular methods and inputs used by a pricing service when pricing information is obtained from multiple pricing services. We believe that the proposed requirements could cause auditors to perform significantly more work when auditing lower-risk financial instruments, which could result in an increase in costs for auditors, companies and pricing services, without a commensurate benefit to audit quality.

#### **Understanding and evaluating the methods and inputs used by pricing services at an aggregated level**

While the proposing release states that the Proposal would not require audit procedures to be applied to each individual financial instrument, we are concerned that the proposed appendix would not allow auditors to stratify financial instruments into groups for purposes of understanding and evaluating a pricing service's valuation methodologies and inputs. The proposal appears to contemplate this in proposed paragraph .A8, which indicates that if pricing information is obtained from multiple pricing services and certain other conditions are met, "less information is needed about the particular methods and inputs used by the individual pricing service."

Our interpretation of this statement is that if all conditions described in this paragraph are met, the evaluation of methods and inputs at a group level would represent a sufficient level of information about the methods and inputs used by the individual pricing service. However, this is not clear based on the wording in proposed paragraph .A8. If our interpretation is correct, we believe the Board should clarify its intent to more clearly state that “less information” would enable evaluations to be performed at a group level.

#### **Criteria regarding the use of pricing information from multiple pricing services**

While we agree with the principle that less information is needed about methods and inputs when pricing information is obtained from multiple pricing services, we are concerned about the extent of procedures that could be necessary for the auditor to satisfy each of the four conditions in proposed paragraph .A8.

For example, conditions .A8c and .A8d could be interpreted as requirements for the auditor to obtain an understanding of the methods and inputs for determining fair value for each financial instrument selected for testing. As described above, this procedure is often performed at a group level rather than for each financial instrument. In addition, specific information regarding valuation models and inputs may not be available to auditors from the pricing service due to its proprietary nature.

As an alternative, we believe the auditor should be able to develop an expectation about whether fair value estimates provided by multiple pricing services should be reasonably consistent. This expectation would be based on the auditor’s risk assessment of financial instruments, considering the auditor’s understanding of the nature and characteristics of the financial instruments, knowledge of market activity and expectations about the degree of consistency in views among market participants regarding the inputs used for determining fair value.

Proposed paragraph .A8a implies that auditors would need to obtain evidence of recent trades. While we agree that the auditor needs to understand how recent trades have been considered in the pricing service’s determination, we believe this assessment can be made at the group level based on the existence of trading information for the various types of securities and other pricing information. As a result, we believe how recent trades are considered by the pricing service should be a factor for the auditor to consider in developing an expectation about the consistency of views among market participants regarding the inputs used to determine fair value.

With respect to proposed paragraph .A8b, it may be impracticable for the auditor to obtain evidence about whether the financial instruments are routinely priced by several pricing services for each financial instrument selected for testing. We believe auditors should be required to obtain this evidence at the group level, particularly since lower-risk financial instruments are more likely to be subject to the guidance in proposed paragraph .A8. Furthermore, the remainder of proposed paragraph .A8 refers to multiple pricing services, whereas proposed paragraph .A8b refers to several pricing services. We recommend that any final standard use consistent language.

Proposed paragraph .A8c would require auditors to understand the methods used to price a particular financial instrument in order to obtain less information about the particular methods. When the auditor obtains an understanding of valuation methodologies at a group level as described above,



particularly for lower-risk financial instruments that would likely be subject to the guidance in proposed paragraph .A8, we do not believe it would be necessary for the auditor to understand the methods used for an individual financial instrument selected for testing pursuant to this paragraph.

Proposed paragraph .A8d could require auditors to obtain evidence about whether the valuations of all financial instruments selected for testing are generally based on observable inputs. We believe the Board should clarify that auditors could perform this assessment at a group level.

Taking a step back, in our view, the auditor should not be required to understand and evaluate the methods or inputs of the particular financial instrument being tested if all four of the following conditions are met: (1) the auditor is able to develop an expectation that fair value estimates provided by multiple pricing services should be reasonably consistent, (2) the auditor obtains prices from multiple pricing services that routinely price that type of financial instrument, (3) the prices are reasonably consistent and (4) the pricing information for the type of financial instrument is generally based on inputs that are observable.

If these conditions are met, we believe it would be sufficient for auditors to evaluate a pricing service's methodologies at a group level rather than evaluate each financial instrument. We believe that the audit evidence obtained from these procedures would be sufficient and appropriate. Based on our views, we offer the following suggestions to paragraph .A8:

.A8 When pricing information is obtained from multiple pricing services, less information<sup>2</sup> is needed about the particular methods and inputs used by the individual pricing services when the following conditions are met:

- a. The auditor's understanding of the nature and characteristics of the particular financial instrument, including his or her expectation about whether market participants share consistent views regarding how recent trades are considered and the inputs used for determining fair value, is sufficient to develop an expectation that fair value estimates provided by multiple pricing services should be reasonably consistent; ~~There are recent trades of the financial instrument or of financial instruments substantially similar to the financial instrument being tested;~~
- b. The ~~particular~~ type of financial instrument is routinely priced by ~~several~~ multiple pricing services;
- c. Prices obtained from multiple pricing services are reasonably consistent, taking into account the nature and characteristics of the financial instrument, ~~the methods used,~~ and market conditions; and
- d. The pricing information for the type of financial instrument is generally based on inputs that are observable.

---

<sup>2</sup> Also refer to our comment above regarding the clarification needed with respect to what would constitute a sufficient level of information and the auditor's ability to evaluate a pricing service's methodologies at a group level.

**Proposed Appendix A to AS 1105, *Audit Evidence* – Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results**

We have several concerns regarding this proposed appendix, and we recommend that the Board replace it with the requirements currently included in paragraphs .28 through .34 of AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*.

It is not clear to us why the Board believes it is necessary to expand the current requirements. We believe that the proposed requirements would represent a significant change in current practice and would significantly increase costs for auditors, companies and their investees, without a corresponding benefit to audit quality. Our concerns are described in the following sections.

**Obtaining information from the investee’s auditor**

Proposed paragraph .A4b indicates that if the investee’s audited financial statements are significant to the valuation of the company’s investment, the auditor should “obtain information about the procedures the investee’s auditor performed and the results thereof or review the audit documentation of the investee’s auditor.” We believe this proposed requirement is unclear and may be difficult to apply.

For example, it is not clear to us what information the auditor should obtain, what type of audit documentation the auditor should review, and whether the auditor would be expected to apply AS 1205, *Part of the Audit Performed by Other Independent Auditors*. Furthermore, obtaining this information may not always be practicable, particularly for investees that are not controlled by the entity being audited and for investees located in foreign jurisdictions (e.g., due to privacy laws).

We note that footnote 14 in AS 2503 currently describes this as a consideration rather than an explicit requirement. There are several considerations that auditors take into account in practice to determine whether this procedure is necessary, such as the materiality of the investment to the company’s financial statements and whether the investee is controlled by the entity being audited.

We believe that if the financial statements of the investee have been audited by an auditor whose report is satisfactory, auditors should be able to assess the reputation and qualifications of the investee’s auditor to support the use of the investee’s audited financial statements, without needing to perform the additional procedures in proposed paragraph .A4b. Any additional procedures should be based on the auditor’s judgment considering the risk of material misstatement. As such, we believe the current guidance in footnote 14 to AS 2503 should be retained to give the auditor the flexibility to determine whether this procedure is necessary.

**Investment company considerations**

The note to proposed paragraph .A4 appears to provide an exception to the proposed requirement in .A4b to obtain information about the procedures the investee’s auditor performed for audits of investment companies, but only if the auditor tests the “investment company’s procedures for understanding the characteristics of underlying investments of the investee fund and assessing the investee fund’s valuation process.” It is not clear to us what it means to “test the investment company’s procedures for understanding” and how auditors would perform these tests.

Also, it is not clear to us why the exception would only be provided if the auditor tests the investment company's procedures and not if the auditor independently understands the characteristics of the underlying investments of the investee fund and assesses the investee fund's valuation process, for example. Furthermore, it is not clear to us whether this exception would be limited to funds of funds based on the example provided in footnote 4 to this proposed appendix or whether the exception would apply to all investment companies as defined under the Investment Company Act of 1940, including business development companies and mutual funds. It is also not clear to us why the exception would only be provided for investment companies. We believe a company that isn't an investment company that holds an investment in a fund that was estimated using the net asset value (NAV) per share practical expedient in Accounting Standards Codification 820, *Fair Value Measurement* (ASC 820) should also qualify for the exception. We recommend that the Board clarify the scope of the exception.

### **Subsequent event inquiries of investee management**

Proposed paragraph .A3b states the auditor should "make inquiries of the investee to identify subsequent events and transactions that could be material to the company's financial statements." We believe current requirements for auditing subsequent events (e.g., inquiries of management, subsequent cash testing) should be sufficient in substantially all circumstances to address this risk. Paragraph .33 of AS 2503 currently requires auditors to make appropriate inquiries of the investor to identify subsequent events and transactions that are material to the investor's financial statements. As a result, we believe the current guidance in paragraph .33 of AS 2503 should be retained.

### **Practicability of the proposed requirements**

For many noncontrolling investments, investor management may not have direct access to investee management to easily arrange for the investor's auditor to perform the procedures in proposed paragraphs .A3b and .A4b, and in some cases, the investor may not be entitled to such information pursuant to the terms of the investment arrangement. In addition, for certain investees that are located in foreign jurisdictions, the investor's auditor may not be permitted to perform the proposed procedures due to foreign laws and regulations around data privacy and licensing.

As a result, the Proposal may have unintended consequences, including that the auditor could have a scope limitation on his or her ability to form an opinion when the procedures in paragraphs .A3b and .A4b cannot be performed. Alternatively, we believe the auditor could obtain sufficient and appropriate evidence by performing other procedures to test the value of the company's investment, based on the identified risks of material misstatement. We believe that if the Board decides to proceed with these or similar requirements, it needs to consider whether the investor controls the investee and the applicable laws and regulations in the circumstances, and provide guidance related to the expected auditor's response.

### **Investee financial statements under PCAOB standards**

Proposed paragraph .A2d states that the auditor should read available financial statements of the investee to obtain an understanding of "whether the report of the investee's auditor indicates that audit was performed under PCAOB standards." It's unclear to us why the PCAOB is making this distinction and whether its intent is to require an auditor to consider the difference in risk between an audit conducted under PCAOB auditing standards and one performed, for example, under AICPA

auditing standards. We believe the auditor's assessment of the qualifications and competence of the investee's auditor, as well as a consideration of the basis of accounting, would be most relevant to the auditor's consideration of the audited financial statements.

### **Scope exclusions**

Footnote 1 to the proposed appendix scopes out equity method investments when (1) the investee is audited by an auditor other than the principal auditor and (2) the other auditor is supervised under AS 1201, *Supervision of the Audit Engagement*, or the work of the other auditor is used pursuant to AS 1205. We believe the Board also should exclude from this requirement:

- ▶ Investments in entities that have a readily determinable fair value that is based on the entities' financial condition, such as mutual funds that are valued based on their NAV per share
- ▶ Investments in entities that are considered components under AS 1201 (e.g., equity method investees that are components) and audited by a component audit team that is part of the same firm as the principal auditor and supervised by the primary team pursuant to AS 1201

### **Other matters**

#### **Applicability**

We believe a final standard should be applicable to all audits conducted under PCAOB standards, including audits of emerging growth companies and brokers and dealers.

#### **Outreach to preparers**

We believe that the implementation of the Proposal, particularly the areas relating to investee financial information and pricing services, could also have implications for preparers. We encourage the Board to seek feedback from preparers on how they believe potential changes in the auditing standards could affect their processes (if at all) and consider that input before finalizing the Proposal.

#### **Effective date**

We believe that the Proposal should be effective at the same time as any new standard and related amendments on using the work of specialists. As described in this letter, if our understanding of the Proposal is correct and changes to it are not made, we believe that its implementation could be a significant undertaking. As a result, we recommend that the standard be effective for audit periods ending two years after the Securities and Exchange Commission approves the final standard.



We would be pleased to discuss our comments with the Board or the PCAOB staff at your convenience.

Very truly yours,

*Ernst & Young LLP*

Copy to:

**PCAOB**

James R. Doty, Chair  
Lewis H. Ferguson, Board Member  
Jeanette M. Franzel, Board Member  
Steven B. Harris, Board Member  
Martin F. Baumann, Chief Auditor and Director of Professional Standards

**Securities and Exchange Commission**

Jay Clayton, Chairman  
Kara M. Stein, Commissioner  
Michael S. Piwowar, Commissioner  
Wesley R. Bricker, Chief Accountant  
Marc A. Panucci, Deputy Chief Accountant

**Appendix – Additional observations**

Comment number	Reference	Observation
1	Proposed AS 2501 .04	This paragraph indicates that AS 2110, <i>Identifying and Assessing Risks of Material Misstatement</i> , establishes requirements regarding the process of identifying and assessing the risks of material misstatement related to accounting estimates. However, it is not clear where such requirements exist in AS 2110. We observe that the proposed amendments to AS 2110.60 and .60A set forth risk factors relevant to the identification of significant accounts and disclosures involving accounting estimates. We are unclear whether the Board intends for auditors to consider these same risk factors when identifying and assessing the risks of material misstatement related to accounting estimates. If so, we believe the Board should clarify its expectations.
2	Proposed AS 2501 .10	The note to this paragraph states that evaluating whether the methods are in conformity with the requirements of the applicable financial reporting framework includes evaluating whether the data and significant assumptions are appropriately applied under the applicable financial reporting framework. This requirement is not clear to us, particularly the meaning of the phrase “appropriately applied.” We recommend that the Board clarify its intent.
3	Proposed AS 2501 .11	This paragraph proposes audit requirements for when the company has changed its method for determining the accounting estimate. We agree with this proposed requirement, but we believe the auditor should also be required to evaluate, if facts and circumstances have changed, whether management failed to revise its method to recognize the new facts and circumstances. We believe such a requirement would highlight the importance of applying professional skepticism when auditing estimates.
4	Proposed AS 2501 .21	Paragraph .21 states that developing an independent expectation involves the auditor using some or all of his or her own methods, data and assumptions to develop an expectation of the estimate for comparison to the company’s estimate. We agree that performing a calculation of the estimate using some or all of management’s methods, data and assumptions and some or all of the auditor’s methods, data and assumptions is an important approach for testing certain estimates, especially significant accounting estimates that require complex models or have high estimation uncertainty. However, we believe the phrasing “developing an independent expectation” implies that the auditor would reach this expectation independently, without reference to management’s methods, data and assumptions. We do not believe developing a truly independent expectation is consistent with the definition of the procedure as defined in the proposed standard. We recommend that the Board consider changing this phrasing to developing a “comparative estimate” or a “point estimate” to better reflect the procedures described. We also note that ED-540 uses the term “point estimate.”

Comment number	Reference	Observation
5	Proposed Appendix A of AS 2501 .A1b	In connection with identifying and assessing risks of material misstatement related to the fair value of financial instruments, this paragraph would require the auditor to take into account the extent to which the fair value of a particular financial instrument is based on inputs that are observable directly or indirectly. As described more fully in the above section regarding Proposed Appendix A to AS 2501, we believe the auditor should be permitted to stratify financial instruments into groups as part of identifying and assessing risks of material misstatement. Hence, we suggest the following edit to paragraph .A1b: "The extent to which the fair value of the <u>type of</u> financial instrument is <u>generally</u> based on inputs that are observable directly or indirectly[.]"
6	Proposed Appendix A of AS 2501 .A4a	This paragraph includes the following factor auditors should consider in assessing the reliability of audit evidence (pricing information) provided by a pricing service: "The experience and expertise of the pricing service relative to the <u>types of financial instruments being valued</u> , including whether <u>the financial instruments being valued</u> are routinely priced by the pricing service[.]" In the second part of the sentence, we believe the requirement should use the phrase " <u>types of financial instruments</u> " instead of " <u>the financial instruments</u> " We believe it could be difficult to determine whether a specific financial instrument is routinely priced by the pricing service.
7	Proposed Appendix A of AS 2501 .A8a	This paragraph uses terms that are not clearly defined such as recent and substantially similar. If this condition is retained in a final standard, we recommend the Board clarify what would constitute a recent trade and delete the word substantially to be consistent with ASC 820, which uses the term similar. We do not believe the proposal is clear about how an auditor would determine what constitutes substantially similar.
8	Proposed Appendix A of AS 2501 .A9	This paragraph discusses relevance and reliability considerations of a broker quote used by the company in measuring the fair value of a financial instrument. It appears the Board intended the guidance in the Appendix to apply when the auditor tests the company's price or uses a company's price when developing an independent expectation. However, the first sentence of proposed paragraph .A9 reads as though this paragraph only applies when the auditor tests the company's price based on a quote from a broker or dealer. We suggest that the Board clarify its intent, especially if the Board intended for .A9 to also apply when auditors develop an independent expectation using a broker quote.
9	Proposed Appendix A of AS 2501 .A9	This paragraph provides guidance on how to evaluate the relevance and reliability of a single broker quote. We recommend the Board also provide guidance on how to evaluate the relevance and reliability of multiple broker quotes when not all criteria are met, similar to proposed paragraph .A8 when using pricing information from multiple pricing services.

Comment number	Reference	Observation
10	Proposed Appendix A of AS 2501 .A10	This paragraph includes requirements on auditing unobservable inputs that are significant to the valuation. We believe Proposed AS 2501 addresses these requirements, including those on identifying significant assumptions (paragraph .15) and evaluating the reasonableness of significant assumptions (paragraphs .16-.18). In addition, there are many types of unobservable inputs to financial instruments, so it is not clear to us why .A10 only takes into account modifications made to observable information and whether management appropriately considered the information available. We recommend deleting this paragraph.
11	Proposed Appendix A of AS 1105 .A2c	This paragraph says the auditor should read the available financial statements of the investee to obtain an understanding of the extent to which the investee's financial condition or operating results affect the valuation of the company's investment. It is not clear to us how the auditor would gain this understanding by reading the investee's financial statements. We believe the auditor would better understand the investee's financial condition by understanding the investor's process, including the methods and assumptions, for determining the value of the investee. Therefore, we recommend that the Board delete section c from proposed paragraph .A2.



---

**Federal Deposit Insurance Corporation  
Board of Governors of the Federal Reserve System  
Office of the Comptroller of the Currency**

---

September 20, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

RE: PCAOB Rulemaking Docket Matter No. 043 – *Proposed Auditing Standard – Auditing Accounting Estimates, Including Fair Value Measurements, and Proposed Amendments to PCAOB Auditing Standards*

Dear Office of the Secretary:

The staffs of the federal banking agencies (the agencies) appreciate the opportunity to comment on the Public Company Accounting Oversight Board's (PCAOB) *Proposed Auditing Standard – Auditing Accounting Estimates, Including Fair Value Measurements, and Proposed Amendments to PCAOB Auditing Standards*. We believe proposed Auditing Standard (AS) 2501 on auditing estimates (Proposed Standard) and related proposed amendments to other auditing standards will improve the quality and the consistency of audits in this important area, reinforce the need for auditors to apply professional skepticism, and enhance market discipline.

The agencies support the PCAOB's efforts to enhance the existing auditing standards on accounting estimates, including fair value measurements. Accounting estimates, particularly those regarding the allowance for loan losses and fair value measurements, have a significant impact on the financial positions and results of operations of financial institutions. High-quality external audits play an important role in ensuring the reliability of institutions' financial information and contribute to financial stability.

The Proposed Standard clearly articulates the objectives and responsibilities of the auditor with regard to estimates, and we believe it will heighten the quality of audits. In particular, we support the explicit reference in AS 2501.04 of the Proposed Standard to proposed amended AS 2110, *Identifying and Assessing Risks of Material Misstatement*, and its requirement for auditors to obtain an understanding of the company's processes by which accounting estimates are developed. We also support the proposed changes to

AS 2110.28, which specifically reference obtaining an understanding of the methods, data, and assumptions a company used to develop accounting estimates as well as the extent of the company's use of specialists or other third parties. Obtaining this understanding promotes a robust risk assessment, which is critical to sound auditing of accounting estimates.

The agencies note that the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, in June 2016. This new accounting standard introduces the current expected credit losses methodology (CECL) for estimating allowances for credit losses, replacing today's incurred loss methodology when the new standard takes effect. The FASB's new standard can be adopted as early as the first quarter of 2019. Therefore, we encourage the PCAOB to finalize and issue the Proposed Standard as expeditiously as possible so it is available to auditors when planning audits of financial statements in which ASU 2016-13 has been implemented.

The modeling of many estimates, including CECL, requires management to consider forward-looking information. In this regard, we recommend that AS 2501.16 and .17 of the Proposed Standard be augmented with supplemental guidance, such as in a second appendix to AS 2501, to address the factors the auditor should consider when evaluating the reasonableness of forward-looking information, including forecasts.

The agencies recognize that the Proposed Standard on auditing accounting estimates is applicable to all accounting estimates, not solely the allowances for credit losses to be estimated under CECL. However, given the significance of allowances for credit losses to the financial statements of financial institutions, the agencies strongly encourage the PCAOB to consider issuing additional guidance specifically addressing auditing CECL estimates to support the initial audits of these estimates at public companies. This guidance could then be reviewed and, to the extent appropriate, updated after preparers, auditors, and inspectors have gained some experience with the new accounting standard. We believe such additional guidance is needed because of the subjective assumptions, measurement uncertainty, and management judgment necessary to estimate expected credit losses.

The agencies believe the PCAOB's outreach efforts and public discussions on the Proposed Standard have been beneficial. We encourage the PCAOB to continue to coordinate with other standard setters, particularly the American Institute of Certified Public Accountants' Auditing Standards Board and the International Auditing and Assurance Standards Board, to promote international consistency in auditing accounting estimates.

We would be pleased to discuss in more detail our views on the Proposed Standard.

Sincerely,

Robert F. Storch  
Chief Accountant  
Federal Deposit Insurance Corporation

Joanne Wakim  
Assistant Director and  
Chief Accountant – Supervision  
Board of Governors of  
the Federal Reserve System

Louis A. (Rusty) Thompson, Jr.  
Deputy Comptroller and Chief Accountant  
Office of the Comptroller of the Currency



August 30, 2017

Office of the Secretary  
Public Company Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Subject: PCAOB Rulemaking Docket Matter No. 43**

Submitted via [comments@pcaobus.org](mailto:comments@pcaobus.org)

Dear Board Members,

The Committee on Corporate Reporting (“CCR”) of Financial Executives International (“FEI”) appreciates the opportunity to comment on the PCAOB’s “Proposed Auditing Standard for Auditing Accounting Estimates, Including Fair Value Measurements.”

FEI is a leading international organization representing approximately 10,000 members, including Chief Financial Officers, Controllers, Treasurers, Tax Executives and other senior-level financial executives. CCR is a technical committee of FEI, and reviews and responds to research studies, statements, pronouncements, pending legislation, proposals and other documents issued by domestic and international agencies and organizations. CCR member companies represent approximately \$7.5 trillion in market capitalization and actively monitor the standard setting activities of the PCAOB.

This letter represents the views of CCR and not necessarily the views of FEI or its members individually.

**Executive Summary**

CCR is supportive of the efforts being made by the PCAOB to improve the guidance for auditing accounting estimates. However, we ask the Board to consider the implications this proposal would have on the preparer due to increased audit costs, and to specifically reconsider the cost-benefit analysis of the proposed changes.

**Pricing Services Concerns**

The proposed Appendix 1 provides guidance for auditors using pricing information from pricing services as audit evidence (A4-A8). It is our concern that the guidance, as written, implies auditor’s procedures

should be based on how particular financial instruments are valued. However, this would be very challenging to operationalize. By and large, companies use reputable pricing services, and when doing so it is not always necessary for management to have insight into how every instrument within the portfolio is valued. If this information is needed by the auditor, the auditor may need to do significantly more work to obtain the information (speak with the pricing service, understand their methodology for each instrument selected for testing, evaluating those methodologies, test the unobservable inputs, etc.) for no perceived benefit. This change could represent a significant shift from what is currently done in practice, and go beyond what we consider necessary. The impact on the preparer is indirect but substantial, as they must provide the auditor with necessary information for their audit evidence/documentation. As this work continues to increase, and consume the time of auditors, it will ultimately also drive increased audit fees.

### **Practicality of Obtaining Information on Equity Method Investees**

Proposed Appendix A to AS1105, *Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results*, applies to companies with certain investments accounted for by the equity method, investments accounted for by the cost method for which there is a risk of material misstatement regarding impairment, and investments measured at fair value for which the investee's financial condition or operating results are a significant input into the fair value determination. The proposed guidance directs the auditor to consider the financial statements for such underlying investments. The proposed requirements appear to demand a significant increase in the time and demand of final work to be performed by auditors as compared to current practice. Some examples of this include:

#### *Subsequent Events of Investee*

Paragraph A3(b) requires the auditor to make inquiries of the *investee* to identify subsequent events and transactions that could be material to the company's financial statement with respect to events and transactions of the investee occurring after the date of the investee's financial statements but before the date of the company's auditor's report.

Current guidance requires auditors to make inquiries of the investor regarding subsequent events. Information relayed by the investor should include all pertinent information—including a subsequent event of an investee that may have a material impact on the investor's financial statements. We question the incremental benefit of the auditor making such inquiries of the investee. Furthermore, in situations where the auditor is unable to obtain the necessary information from the investee, it is unclear whether management will be required to facilitate the conversation between the two parties. This can have broader implications such as higher audit costs and delays in the timing of the audit.

#### *Audit Documentation by Investee Auditor*

Proposed paragraph A4(b) requires the auditor to obtain information about the procedures that the investees' auditor performed and the results thereof, or review the audit documentation of the investees' auditor. This applies if the investees' audited financial statements are significant to the

valuation of the company's investment. In practice, this would create problems in situations where auditors are required to obtain certain information from an investee but are unable to gather the appropriate information. It is common for an investor to not have a close relationship with an investee, in which case obtaining such information might be difficult. Requiring management to facilitate that dialogue could be extremely challenging and unreasonably burdensome.

**Professional Skepticism**

It is important that auditors maintain professional skepticism as a key tenant of auditor behavior. Some stakeholders have noted that the language in the proposal may suggest a higher degree of skepticism than is currently required<sup>1</sup>, with some suggesting that the auditor is being instructed to be cynical in their approach to management assertions. These concerns are in reaction to the references to "moral hazard" as justifications given for positions taken in the proposal. We recommend clarification that the standards around professional skepticism and due professional care as outlined in existing PCAOB standards continue to apply and that this proposal is not intended to amend, revise, or expand those standards.

**Conclusion**

Based on the foregoing, we recommend the Board amend the proposal in light of cost considerations these changes will introduce to the preparer, with little perceived benefit to users of financial statements. Requiring more auditing around estimates does not mean better estimates will be provided to users of financial statements. We also ask the Board to consider the tone in which this proposal is written and reinforce the notion of a healthy degree of professional skepticism.

Should you have any questions, we welcome the opportunity to discuss our comments further.

Sincerely,



Mick Homan  
Chairman  
Committee on Corporate Reporting  
Financial Executives International

---

<sup>1</sup> Refer to AS 1015: Due Professional Care in the Performance of Work

**FROM:** Dr. Steven Glover (Professor at Brigham Young University)  
Dr. Brant Christensen (Professor at University of Missouri)

**TO:** Office of the Secretary, PCAOB

**DATE:** August 29, 2017

**SUBJECT:** Comments on Proposed Auditing Standard, *Auditing Accounting Estimates, Including Fair Value Measurements (Docket Matter No. 043)*

---

We appreciate the opportunity to submit comments on the Board's Proposed Auditing Standard on *Auditing Accounting Estimates, Including Fair Value Measurements* (hereafter referred to as the Proposed Standard). We, along with two other colleagues, previously submitted comments on the Board's related Staff Consultation Paper on Auditing Accounting Estimates and Fair Value Measures.<sup>1</sup> Having performed recent academic research regarding fair value, estimates, and estimation uncertainty,<sup>2</sup> we support the Board's efforts to clarify expectations and requirements in these areas. Our comments in this letter center on the subject of estimation or measurement uncertainty.

We believe the Proposed Standard, as currently written, inadequately addresses important issues around measurement uncertainty. As a result, we are concerned that the PCAOB is missing an opportunity to clarify auditing standards in important ways. Academic research by Glover, Taylor and Wu (2017b) indicates that a lack of clarity in the existing standards is a contributing factor to the persistence in reported PCAOB audit deficiencies associated with auditing estimates and fair value measurements. Findings in that study suggest both auditors and PCAOB inspectors lack clarity on what constitutes sufficient appropriate audit evidence and adequate disclosure regarding estimates for which the reasonable range of measurement uncertainty (i.e., outcomes considered reasonably likely by experts) exceeds materiality. Audit experts in the study indicate that they would welcome more guidance from PCAOB standards as the current lack of clarity leads to disagreements between auditors and inspectors regarding the auditors' responsibilities, work effort, and documentation associated with auditing estimates with significant estimation

---

<sup>1</sup> We believe the Board would benefit from additional consideration of the comments we previously submitted; that letter included more specific details from our relevant research.

<sup>2</sup> For additional information, see:

- Christensen, B. E., Glover, S. M., & Wood, D. A. (2012). Extreme estimation uncertainty in fair value estimates: Implications for audit assurance. *Auditing: A Journal of Practice & Theory*, 31(1), 127-146.
- Christensen, B. E., Glover, S. M., & Wolfe, C. J. (2014). Do critical audit matter paragraphs in the audit report change nonprofessional investors' decision to invest? *Auditing: A Journal of Practice and Theory*, 33(4), 71-93.
- Christensen, B. E., Glover, S. M., Omer, T. C., & Shelley, M. K. (2016). Understanding audit quality: Insights from audit professionals and investors. *Contemporary Accounting Research*, 33(4), 1648-1684.
- Glover, S. M., Taylor, M., & Wu, Y. (2017a). Current practices and challenges in auditing fair value measurements and complex estimates: Implications for auditing standards and the academy. *Auditing: A Journal of Practice and Theory*, 36(1), 63-84.
- Glover, S. M., Taylor, M., & Wu, Y. (2017b). Mind the gap: Why do experts have differences of opinion regarding the sufficiency of audit evidence supporting complex fair value measurements? Working Paper, Brigham Young University and Case Western Reserve University.
- Glover, S. M., Taylor, M., & Wu, Y. (2017b). The Gap between Auditing Experts' Performance and Regulatory Expectations when Auditing Complex Estimates and Fair Value Measurements: Causes and Potential Solutions Working Paper, Brigham Young University, Case Western Reserve University, and Texas Tech University. Available at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2504521](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2504521)

uncertainty. Research indicates that the most frequently mentioned areas for which audit experts desire additional guidance include: (1) clarification regarding what constitutes an acceptable range of estimation uncertainty and (2) clarification regarding how the auditors are to address and disclose such uncertainty.

Until the PCAOB auditing standards more clearly acknowledge the existence of significant measurement uncertainty, and more clearly indicate what constitutes sufficient appropriate audit evidence and appropriate disclosure, we will continue to see an expectations gap between auditors and PCAOB inspectors. This expectations gap will likely result in persistent reporting of audit deficiencies primarily due to differences of interpretation and opinion.

We note that the discussion material released with the Proposed Standard refers to the reality that the reasonable range of measurement uncertainty can exceed materiality. This awareness and open acknowledgement is an important step for the profession. However, that same awareness and acknowledgment does not appear to be in the Proposed Standard itself (i.e., Appendix 1) or the proposed amendments to other standards (i.e., Appendix 2). In fact, we were surprised to find only one reference to measurement uncertainty in Appendix 1. In rather stark contrast, the IAASB's exposure draft to *Auditing Accounting Estimates and Related Disclosures* (ED-540) contains over 85 references to estimation/measurement uncertainty. A read of ED-540 illustrates just how central, fundamental, and important the concept of estimation uncertainty is in auditing estimates.

The Board appears to have considered requiring specific procedures in response to measurement uncertainty, but eventually deemed those procedures duplicative to other standards that require auditors to direct additional attention to significant risks (pg. 50-51 of the Proposed Standard). However, due to their inherent and irreducible uncertainty, estimates with material measurement uncertainty are fundamentally different from other significant risks encountered during the audit process and thus merit specific audit procedures and disclosure considerations. While proposed amendments to AS 2110 do suggest the degree of measurement uncertainty is an important risk factor for auditors to consider, we believe that the Proposed Standard falls short in addressing the following fundamental questions (for the benefit of the Board, we provide references in parentheses where ED-540 appears to address these questions):

- How do auditors reconcile a reasonable range of estimation uncertainty that is greater than quantitative materiality and the requirement to provide a high level of assurance that estimates are fairly stated in all material respects? (see ED-540 A2, A134, A142-A146)
- What should auditors do to address and respond to significant estimation uncertainty, particularly when the reasonable range of uncertainty is inherently large and cannot be reduced by additional effort from management or the auditor? (see ED-540.19 and A113-134)
- What is management's and the auditor's responsibility in performing sensitivity analyses to understand the extent of estimation uncertainty? (see ED-540.13c, 19, A2, A46, A92, A109, A113-A115, A123, A126-127, A136).
- How to assess whether the level of estimation uncertainty is adequately disclosed to users of the financial statements, both by management and by auditors? (see ED-540 A116-A125).



- How should auditors address the reality that some estimates cannot be made in accordance with reporting frameworks? (see ED-540 A90)
- How should auditors and the audit opinion address the potential impact on the financial statements as a whole (and in particular on seemingly precise summary point estimates such as earnings per share) of the aggregated uncertainty from multiple financial statement estimates containing significant estimation uncertainty?

In subsequent revisions of the Proposed Standard and related conforming amendments, we encourage the Board to provide guidance to address the important issues associated with significant estimation uncertainty.

We appreciate the opportunity to offer our comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brant Christensen".

Dr. Brant Christensen, University of Missouri

A handwritten signature in blue ink, appearing to read "Steven Glover".

Dr. Steven Glover, Brigham Young University



# Grant Thornton

August 30, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803

**Grant Thornton LLP**  
Grant Thornton Tower  
171 N. Clark Street, Suite 200  
Chicago, IL 60601-3370

T +1 312 856 0200  
F +1 312 565 4719  
grantthornton.com

Via Email to [comments@pcaobus.org](mailto:comments@pcaobus.org)

**Re: PCAOB Rulemaking Docket Matter No. 043, Proposed Auditing Standard –  
*Auditing Accounting Estimates, Including Fair Value Measurements and  
Proposed Amendments to PCAOB Auditing Standards***

Dear Board Members and Staff:

Grant Thornton LLP appreciates the opportunity to comment on the Public Company Accounting Oversight Board's proposed auditing standard, *Auditing Accounting Estimates, Including Fair Value Measurements* and Proposed Amendments to PCAOB Auditing Standards, and we respectfully submit our comments and recommendations thereon.

Overall, we see considerable value in enhancing the audit requirements relative to accounting estimates and fair value measurements. We commend the Board on its efforts thus far. We fully support a single standard to address estimate-related topics currently covered by three separate standards, as well as the retention of the three basic approaches to auditing accounting estimates. Nevertheless, we have concerns with certain aspects of the proposal, including the potential prescriptiveness of certain of the proposed requirements, as well as the general lack of acknowledgment and guidance for auditors in addressing estimates with significant estimation uncertainty. These concerns are discussed in greater detail below.

**Scope and objective**

The stated objective to the proposed standard is to “obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework, and are free from bias that results in material misstatement.”<sup>1</sup> While we appreciate the Board's desire to better focus the auditor on addressing management bias, we believe positioning this notion in the objective of the proposed standard could result in unintended consequences. First, we believe the use of the phrase “free from bias” could imply *absolute* assurance, which is inconsistent with the overall objective of the financial statement audit to obtain *reasonable* assurance. It also

---

<sup>1</sup> Paragraph .03 of Proposed Auditing Standard AS 2501.

contradicts the fact that all estimates, by their nature, contain some level of bias. Therefore, we recommend the notion be removed from the objective and the Board incorporate considerations specific to management bias in the “Identifying and Assessing Risks of Material Misstatement” section of the proposed standard.

### **Identifying and assessing the risks of material misstatement**

Paragraph .04 of the proposed standard introduces the concept of “components of estimates,” but its intended meaning is unclear. As currently presented, we believe it could either mean components such as inputs, assumptions, etc., used to develop the estimate, or components as in individual accounts aggregating into one financial statement line item (for example, individual investment balances or accounts that roll up into the company’s total investments presented on the face of the financial statements). We believe this ambiguity could lead to misinterpretation by auditors and result in the misapplication of the requirements. As such, we request that the Board clarify its intentions in order to promote a better understanding by auditors in the appropriate application of the requirements to components of estimates.

We further believe the issue of “high measurement uncertainty” is not dealt with sufficiently in the proposed standard. As noted in our letter<sup>2</sup> in response to the 2014 Staff Consultation Paper on this topic, we believe the revised standard should better address the auditor’s responsibilities and possible responses to high measurement uncertainty. It would be helpful if the proposal were to acknowledge that evidence may support a range of acceptable values that exceeds the level of materiality and that this level of uncertainty may exist regardless of the extent of audit procedures applied. For example, we note certain standard-setters emphasize the adequacy of company disclosures under a fair presentation framework as one element of addressing high measurement uncertainty. Along those lines, the PCAOB might consider circumstances where the transparency to the user could be compromised, without management disclosing what they view as the range of uncertainty and the support for the point estimate they chose. We believe the profession and PCAOB could effectively address these issues, and we believe enhancements to the proposed standard in this area would provide a significant benefit to users of the financial statements.

### **Responding to the risks of material misstatement**

As noted in our introduction, we support the retention of the three basic approaches to auditing accounting estimates: testing the company’s process, developing an independent estimate, and considering subsequent events. We believe these approaches, in general, are widely understood in the profession and, when applied properly, are effective means in obtaining sufficient appropriate audit evidence about an accounting estimate. However, we have some concerns, which are outlined below.

#### **Testing the company’s process used to develop the accounting estimate**

There are certain areas of this approach, as set forth in the proposed standard, that are not consistent with a principles-based standards approach. For example, the requirement to evaluate

---

<sup>2</sup> Refer to our letter dated November 3, 2014 submitted to the PCAOB in response to the Staff Consultation Paper, Auditing Accounting Estimates and Fair Value Measurements (August 19, 2014).

whether the methods used by the company are “appropriate for the nature of the related account or disclosure and the business, industry, and environment in which the company operates”<sup>3</sup> is predicated on the assumption that all companies within a particular industry use the same method in determining their accounting estimates. This would result in a required evaluation for all engagements and may be impractical or not meaningful. Rather, we believe that management’s selection of an appropriate method is based on their specific facts and circumstances and that variety could exist among industry peers depending on the facts and circumstances of the company. Therefore, we believe that it would be more appropriate to require the auditor to evaluate whether the methods are appropriate “in the circumstances” and use the proposed factors more as considerations in assessing the adequacy of the method used. This enables the auditor to exercise judgment in considering what factors are most meaningful in evaluating the company’s selected methods.

We believe the guidance provided by proposed paragraph .15 would be helpful to auditors in identifying significant assumptions. However, we are concerned that the criterion described in sub-bullet .15e, when considered in isolation, could lead auditors to conclude that all assumptions within an estimate are significant. We ask the Board to reconsider the presentation of this criterion and to also include a note to paragraph .15 that further describes the interplay of the sub-bullets to the paragraph so as to avoid situations where the auditor may determine all assumptions to be significant. Moreover, we disagree with the current note to proposed paragraph .15 because we do not believe the auditor should be required to identify a significant assumption merely because management identified it as such.

With regard to proposed paragraph .18, we are concerned with linking the requirement to the “critical accounting estimates” identified by management for which the auditor would obtain an understanding of management’s sensitivity analyses of significant assumptions within these estimates. We believe putting this requirement in the context of critical accounting estimates may inappropriately link the financial statement audit to Management’s Discussion & Analysis disclosures as required by the relevant Securities and Exchange Commission rules and regulations. In our view, the linkage to critical accounting estimates would imply that management has appropriately and sufficiently identified its critical accounting estimates as those with respect to the higher level of risk of material misstatement, which may not always be the case. It would be more appropriate for the auditor to execute this requirement in the context of significant risks or based on auditor judgment when sensitivity analysis would serve as an appropriate means of evaluating the reasonableness of significant assumptions.

#### **Developing an independent expectation of the estimate**

We are supportive of the change in terminology from “corroborate” to “evaluate” or “compare.” We believe this change could further encourage the application of professional skepticism in executing those procedures.

---

<sup>3</sup> Paragraph .10b of Proposed Auditing Standard AS 2501.

Proposed paragraph .25 states, “If the auditor’s independent expectation consists of a range ... the auditor should determine that the range is appropriate for identifying a misstatement of the accounting estimate ...” We are concerned by this requirement and believe it can lead to operational challenges for auditors. As currently written, it appears the auditor does not consider materiality in determining whether the range is appropriate, which is inconsistent with a risk-based approach to obtaining reasonable assurance. To remedy this, we recommend adding “material” to “misstatement” in the sentence above to better convey that the auditor should consider materiality in his/her determination.

Furthermore, the additional discussion to paragraph .25 in Appendix 3 to the proposal<sup>4</sup> acknowledges that outcomes of certain accounting estimates could vary widely, even beyond the auditor’s established level of materiality, and that the range could provide a reasonable basis for identifying a material misstatement, so long it includes only supported outcomes. We believe this acknowledgement of high measurement uncertainty is not clear in the requirement itself but is an important concept to include in the standard, as we noted in our opening comments.

#### Appendix A – special topics

We appreciate the approach taken by the Board to include an appendix to the proposed standard to specifically address the unique audit implications of fair value measurements. However, it is unclear whether the requirements of the appendix should be applied to each individual financial instrument selected for testing or whether certain evaluations can be performed at a more aggregated level prior to audit procedures being applied. As currently written, it appears the auditor is required to perform his/her evaluation at the individual financial instrument level. We believe this could create considerable operational challenges in practice due to the precision implied in the proposed requirement as currently written.

Moreover, we encourage the Board to consider how the standard could acknowledge the use of (i) centralized pricing functions and (ii) firm-level due diligence procedures over pricing services, both of which are currently in place in various firms today. As currently written, the proposal implies that the engagement team must perform all the procedures relative to these functions for each estimate; however, this is not effective or efficient for engagement teams or the pricing services themselves. Instead, firms often perform due diligence procedures at the national level, which can then be leveraged by engagement teams in their specific engagement. We believe it would be particularly helpful to be clearer in the proposal with regard to how the results of national-level work interacts with the audit team’s responsibility to arrive at sufficient, appropriate audit evidence.

With regard to paragraph .A4c, we are concerned about the potential operational challenges this requirement may introduce. It appears the auditor would be able to obtain this information only through inquiry, which may not be viewed as suitable evidence. Further, we believe this factor may only be relevant in instances where a controlled subsidiary of the company is a third-party pricing service. Therefore, in order to make it more operational, we believe it would be more

---

<sup>4</sup> Page A3-26 of the proposal.

appropriate to reference to the work performed by the auditor in accordance with AS 2410, *Related Parties*. We suggest, that the Board consider revising the requirement as follows: “whether the results of the procedures performed in accordance with AS 2410, *Related Parties*, indicate a relationship between the pricing service and the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service.”

### **Proposed amendments to other standards**

#### **AS 1105, *Audit Evidence***

With regard to paragraph .A2d proposed for AS 1105, it is unclear why the Board would limit the consideration of an audit of an investee to one performed under PCAOB standards. The extant requirement states, “Financial statements of the investee that have been audited by an auditor whose report is satisfactory, for this purpose, to the investor’s auditor may constitute sufficient evidential matter.”<sup>5</sup> This requirement further has a footnote reference describing what the auditor may consider in determining whether a report is satisfactory. We believe audit reports issued under other sets of auditing standards, for example, auditing standards generally accepted in the United States of America or the International Standards on Auditing, could provide relevant audit evidence.

We recommend that the revised standard acknowledge that depending on the risks related to the investee, the company’s auditor would evaluate whether a report issued under a different framework is sufficient and appropriate audit evidence. The company’s auditor could then perform incremental procedures to “fill in the gaps” between the standards of the PCAOB and the other set of auditing standards used for the investee’s audit. We recommend the Board consider building in the concepts from existing AS 2503.28 and the related footnote 14 to allow greater flexibility in these situations. This could then alleviate potential operational challenges that might occur by prescribing the use of the standards of the PCAOB as currently proposed in paragraph .A2d.

Proposed paragraph .A3b addresses procedures related to subsequent events of an investee that may impact the investor’s financial statements. We note a seemingly small change in this requirement from the extant requirement in AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*, that could have a significant impact on the ability of the auditor to meet the requirement. Currently, AS 2503.33 states, “... the auditor should read available interim financial statements of the investee and make appropriate inquiries of the **investor** to identify subsequent events...” [emphasis added]. Alternatively, the proposed requirement requires the auditor to make appropriate inquiries of the **investee** [emphasis added]. We strongly encourage the Board to retain the extant requirement. We believe it is more operational and sufficiently addresses the objectives of the requirement.

#### **AS 2110, *Identifying and Assessing Risks of Material Misstatement***

We are supportive of specifically adding the notion of management bias in accounting estimates to the existing requirement of AS 2110. However, the amendment as currently proposed implies

---

<sup>5</sup> Paragraph .28 of AS 2503.

the auditor should seek out bias in every single accounting estimate, which we do not believe results in the auditor focusing on the areas of risk during the fraud discussion. We believe more appropriate wording focuses on estimates that are “more susceptible” to material misstatement from management bias or where management bias is “more likely to” result in a material misstatement.

In our view, the additional risk factors provided in proposed paragraph .60A are generally helpful. Nevertheless, it is unclear whether sub-bullet a in that paragraph relates to high measurement uncertainty. As we note above, we believe this concept requires greater and more specific attention. Notwithstanding our concerns with this requirement, we believe auditors could significantly benefit from a clearer link between these factors and the resulting risk assessment, including identification of significant risks, and the development of the special audit response to those significant risks.

#### **AS 2401, *Consideration of Fraud in a Financial Statement Audit***

We have considerable concerns that the proposed revisions to paragraph 64 of AS 2401 will have unintended consequences in practice. We believe such revisions change the meaning and manner of execution of a retrospective analysis. It is important that the determination to perform a retrospective review be risk-based as opposed to a requirement to conduct a retrospective review on any accounting estimates in significant accounts and disclosures. Further, we feel the revisions lend themselves to greater prescription, even though retrospective analysis is not always an effective evaluation of potential management bias for many estimates. Therefore, we believe this creates a significant amount of additional work without being effective in improving risk identification or overall audit quality. We strongly recommend the Board retain the extant requirement, which we believe is sufficiently operational in today’s audits.

### **Other considerations**

#### **Interim reviews**

Often, a company faces circumstances during an interim period that could lead to a significant revision in an estimate, such as an asset impairment or the bankruptcy filing of a large customer. In such cases, the auditor may need to perform procedures that go beyond the standard inquiry and analytical procedures performed during the typical interim review. Accordingly, stakeholders would further benefit if this proposal were to include additional guidance relative to estimates in the context of heightened procedures that may be necessary in performing a review of interim financial information.

#### **Applicability and effective date**

We believe all audits, including those of emerging growth companies and broker-dealers, would benefit from the enhancements and clarifications intrinsic within the final standard. While we do not expect a significant impact on our audit practice as a result of adoption, we generally expect that firms, including ours, would need sufficient time to update policies, methodologies, and related training in order to carry through the objectives of the overall proposal. Given the timing of when these updates are usually made during an audit cycle, we recommend the Board provide an effective date of two years after SEC approval.

\*\*\*\*\*

If you have any questions about our response, or wish to further discuss our comments, please contact Trent Gazzaway, National Managing Partner of Professional Standards, at (704) 632-6834 or [Trent.Gazzaway@us.gt.com](mailto:Trent.Gazzaway@us.gt.com).

Sincerely,

*Grant Thornton LLP*





August 30, 2017

Office of the Secretary  
PCAOB  
1666 K Street NW  
Washington, D.C. 20006-2803  
Via email: [comments@pcaobus.org](mailto:comments@pcaobus.org)

Re: PCAOB Release no. 2017-002  
(June 1, 2017), Auditing Accounting  
Estimates, Including Fair Value  
Measurements

To the Board:

Harvest Investments, Ltd. thanks the Board for the opportunity to comment on its proposed auditing standard dealing with accounting estimates and fair value measurements. Before offering our thoughts on the substance of the Board's Release, we would like to express our appreciation for all the work the Board has done in preparing this document for public release, not least since we recognize that it required organizing considerable outreach efforts as well as integrating years of research and scores of previous commentaries from many of the major stakeholders. We think the Board has been successful both in highlighting critical issues and in generating workable remedies for many continuing difficulties involving auditing accounting estimates and fair value measurements.

In our responses to the Board's questions, we draw on our experience as a securities valuation specialist to point out a number of persistent challenges arising from the ways information about price and risk currently circulates within the financial system, specifically in relation to the fair-valuation of financial instruments. The PCAOB, auditors, and many pricing providers have made great strides in addressing and increasing transparency in recent years. As the Board explains, its intention to replace three auditing standards instituted prior to the 2008 crisis results from its acknowledgment that more sophisticated understandings of risk and its causes have developed since

then. Harvest agrees that amending and clarifying current guidance will be beneficial to the public interest. We have lately experienced a relatively long-term period of low interest rates and low volatility, but in all likelihood this situation will not last forever.<sup>1</sup> We share the Board's concerns about clearly identifying sources of risk and welcome its efforts to ensure that guidelines are put in place before the environment changes, so that its considerable efforts to protect investors over the past decade pay off.

***Question 1: Does the discussion of the reasons to improve auditing standards sufficiently describe the nature of concerns related to auditing accounting estimates that the Board should address? Are there additional concerns that the Board should seek to address?***

We think that the Board's discussion accurately describes the most important reasons for improvement in auditing standards, and we agree with the Board's observation that the crisis underscored the importance of audit and valuation issues within the financial system (p. 6). At present, the market exhibits comparable features to the pre-crisis period in 2007: the role played by mortgage securities, auctions rates, and CDOs then is now being taken over by CMBS, conduit municipals, bundled student loan and sub-prime auto loan securities, along with CLOs (which are considered CDOs).<sup>2</sup>

The public testimony of SIFMA's Randolph Snook confirms our assessment: "the U.S. fixed income markets are truly without parallel. Total outstanding U.S. fixed income debt is almost \$40 trillion dollars (based on SIFMA)...On average, \$775 billion of securities are traded each and every day."<sup>3</sup> In other words, only 2% of the fixed income market trades on any given day. The quantity of trades within the fixed-income security market has declined considerably from where it was ten years ago,<sup>4</sup> which means that the vast majority of those securities get priced using non-trade-based assumptions and calculations. We estimate that as many as 80-90% of all prices provided by pricing services are consequently based on inputs and assumptions that require testing in order to be fully compliant with ASC 820. Further, "new issuance (was) in the range of \$6 to \$7 trillion per year over the last five years," and structured products (including CLOs and other items with embedded derivatives) continue to boom: as Snook notes, "[t]he securitization market funded 60% of consumer lending in 2016."<sup>5</sup>

Given the evidence linking bad prices and ratings to the crisis,<sup>6</sup> we think that investor protection will be improved by carefully addressing the use of pricing sources and their different degrees of

<sup>1</sup> For a recent example of this perspective, see FT Reporters, "Equity Valuation: Five Charts that Matter for Investors" in *Financial Times* (22 August 2017) <https://www.ft.com/content/c4de73e2-17a1-11e7-9c35-0dd2cb31823>

<sup>2</sup> James Crotty, "Structural Causes of the Global Financial Crisis: A Critical Assessment of the 'New Financial Architecture'" in *Cambridge Journal of Economics* 33:4 (2009), pp. 563-80; and Mary Barth and Wayne Landesman, "How did Financial Reporting Contribute to the Financial Crisis?" in *European Accounting Review* 19:3 (2010), pp. 399-423. Cf. Randall Dodd and Paul Mills, "Outbreak: The US Subprime Contagion" in *Finance & Development, A Quarterly Magazine of the IMF* 45:2 (June 2008) <http://www.imf.org/external/pubs/ft/fandd/2008/06/dodd.htm> for a useful overview emphasizing problems of information transparency in general.

<sup>3</sup> Randolph Snook (Executive Vice President SIFMA), Written Testimony before the US House of Representatives Financial Services Committee, Subcommittee on Capital Markets, Securities and Investments Hearing "A Review of Fixed Income Market Structure" (July 14, 2017): pp. 2, 4. Available for download here: <http://www2.sifma.org/issues/item.aspx?id=1515>

<sup>4</sup> Snook, pp. 7-9 especially Chart 6.

<sup>5</sup> Snook, p. 26.

<sup>6</sup> Academic attention to issues of price construction is fairly recent: Cf. Larry Cordell, Yilin Huang and Meredith Williams, "Collateral Damage: Sizing and Assessing the Subprime CDO crisis" Philadelphia Federal Reserve working paper 11-30R (May 2012): <https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2011/wp11-30.pdf>. But note the pricing data they use to revalue the CDOs in their sample

transparency so that issuers and auditors are able to assess and evaluate the information provided to them by management accurately and critically. Our response to Question 1 hinges substantially on this point.

The role of the auditor remains crucial to the functioning of the financial system as a whole, but it is important to point out that auditors did not cause the crisis.<sup>7</sup> Rather, it originated with prices that were calculated using approximations, which then fell out of alignment once the crisis disrupted the markets. Auditors could not scrutinize price construction because the actual inputs used in their development were not transparent, and so the prices continued to circulate throughout the financial system. In a crisis, many items previously trading in liquid markets start trading differently or stop trading altogether, which means that they can abruptly transform from easier-to-value into very difficult-to-value. With any meaningful market shift, categorizations or rules-of-thumb about individual instruments or types of instruments and their valuation complexities need to be revisited and appropriately revised.

In this Release, the Board raises multiple concerns about the current testing of fair value assumptions: on page 9, the need to test management's process, assumptions, and data is mentioned; on page 12, attention is called to deficiencies in testing accuracy, completeness, and reasonableness of assumptions and resultant fair values; pages 13-14 treat deficiencies related to the testing of fair value inputs as they have come up in enforcement cases. Taken together, these examples provide a compelling rationale for the Board's additional efforts to improve guidance and increase transparency.

On page 15, the Board mentions that some commentators on its SCP thought that PCAOB requirements could be improved by adding clear guidelines for the appropriate use of third-party pricing sources. We agree, and think that appropriate use should include recognition of the need for transparency of security-specific structural features and related market-participant inputs at the individual price level.

The Board lays out specific requirements and directions for the testing of fair values as part of its "Discussion of Proposed Rules" (pp.16-21, 20), including a requirement that the auditor understand how unobservable inputs were determined and evaluated. We agree with this requirement, because any source used in ASC 820 valuation should conform to that guidance; in other words, it should be transparent about the origin of the pricing data (trading in exact, broker quote, etc.) and the inputs and assumptions used in the price development or algorithm. In order to conduct analysis and testing successfully, an auditor clearly needs to know which securities have unobservable inputs (i.e.,

---

on p. 31, Table 8. See also Beltran, Cordell and Thomas: "Asymmetric Information and the Death of ABS CDOs" in *Journal of Banking & Finance* v.47 (March 2017), pp. 1-14. Rating agency problems have received far more attention: Frank Partnoy, "What's (Still) Wrong with Credit Ratings" San Diego Law School Working Paper 17-285, forthcoming in *Washington Law Review*, and available via SSRN here: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2969086](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2969086) and Partnoy, "Overdependence on Credit Ratings was a Primary Cause of the Crisis" in *Proceedings of the 2008 International Banking Conference: "The First Credit Market Turmoil of the 21st Century"* (World Scientific Publishers, 2009) available via SSRN: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1430653](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1430653). See also the article Crotty 2009 (note 2, above) and Ben Beachy, "A Financial Crisis Manual: Causes, Consequences and Lessons of the Financial Crisis", Tufts University Global Development Institute Working Paper no. 12-06, available at: <https://ideas.repec.org/p/dae/daepap/12-06.html>

<sup>7</sup> Khurram Shahzad, Thierry Pouw, Ghulame Rubbaniy and Osama el-Temamy, "Audit Quality During the Financial Crisis: An Investor's Perspective" in *Research in International Business and Finance* (in press, 7/2017), finds "strong evidence of an increase in the perceived quality of audits during the GFC for US firms non-financial and financial firms." For a report focused more on audit practice and valuation issues, see UK House of Lords inquiry "Auditors: Market Concentration and their Role" assembled and published by the House of Lords Select Committee on Economic Affairs: <https://publications.parliament.uk/pa/ld201011/ldselect/ldeconaf/119/119.pdf>.

which are level 3) and to obtain the actual inputs used, as well as the level of those inputs. Specific provisions that ensure this level of informational detail within the audit process can easily, efficiently, and inexpensively ensure that accurate pricing data circulates through the system.

***Question 2: Does the information presented above reflect current audit practice? Are there additional aspects of current practice of both larger and smaller audit firms that are relevant to the need for standard setting in this area?***

Harvest agrees that the information presented (pp. 10-14) reflects present audit practice. We would also like to call the Board's attention to the different ways that the work of pricing sources currently gets used in practice, particularly within mid-size and smaller firms. At some smaller firms, for example, auditors will "test" management's information using the same ultimate pricing source (a reseller). Sometimes this is done intentionally; in other cases it may be inadvertent, especially if an auditor is unaware of the ways data can be repackaged and resold without transparency into price construction. Regardless, nothing at all is being tested if the information used by management and auditor is identical. Such observations from practice, coupled with PCAOB inspection findings that auditors used neither an employed or engaged specialist in 75% of the analyzed audit engagements<sup>8</sup>, are concerning and should be addressed.

***Question 7: The Board requests comment generally on the analysis of the need for the proposal. The Board is interested in any alternative economic approaches to analyzing the issues presented in this release, including references to relevant data, studies, or academic literature.***

The Board identifies concerns over moral hazards, confirmatory bias, and the need for skepticism (pp. 28-35), all of which are well-supported by the literature cited. We would like to call attention to a discretely temporal concern here as well, alongside the epistemological: auditors are under great pressure when assessing and handling variance, often working under tight time constraints. We recommend that the forthcoming guidance help identify situations in which auditors should seek additional support. Currently, only a handful of the largest and most sophisticated auditors have the knowledge, experience, skill, training, and resources to make such judgments; this already challenging task becomes considerably more difficult if auditors are blind to inputs at the individual price level, as is often currently the case.

The Board appropriately addresses pricing services, broker quotes, and other sources of information, commenting that "differences in relative risk suggest that some third parties (e.g., pricing services and brokers or dealers) may need to be treated differently from others (e.g., specialists) under some circumstances" (pp. 36-7, 37). We share the Board's concerns about risk, and concur with its corresponding emphasis on the need for unbiased, consistent, and transparent deliverables.

The Board states that there is less risk of inherent bias when a pricing service is used since "most of the prices provided by these services are for traded securities or for securities for which quotes are

<sup>8</sup> PCAOB Release No. 2017-003 (1 June 2017), p. 26.

available or for which similar securities are traded” (p. 37). We find this statement somewhat misleading in its emphasis on the “monitoring activity by the market as a whole” and market activity in exact or similar instruments (p. 37). Elsewhere, however, the Board correctly acknowledges that “only a fraction of the population of financial instruments is traded actively” (Appendix 3, A3-36). In fact, trading levels are down from pre-crisis rates in every sector except corporate bonds: municipals are down 62%, treasuries down 7%, agency MBS down 24%, and agencies down 94%; corporates are up 57%, thanks in part to a booming structured securities market, which now make up about half of investment bank bond issuances.<sup>9</sup> These figures indicate that the majority of prices circulating in the financial system are not based on trade information (whether exact or comparable) but on some other approach.

Pricing services price everything from treasuries to complex non-agency mortgages, inverse IO’s, and structured notes, and users of those services are not able to identify which items are easy-to-price and which are complex from the information provided. Even a very seasoned specialist cannot identify a structured note within a portfolio merely by reading its description, because these descriptions often look exactly like their easier-to-price corporate bullet counterparts. Prices provided by custodians and other service organizations ultimately come from a pricing service; when management or audit forms contract with a service organization, however, they have no contractual option for compelling transparency with respect to the pricing information they receive. Adding to the confusion, custodians/service organizations now routinely assign levels using varying methodologies that are not necessarily aligned with ASC 820 and that provide no clarity concerning inputs and input strength at the individual security level. This practice has resulted in widespread overreliance on level 2 designations in a manner that is not ASC 820 compliant, given that it is impossible to know whether the inputs are even observable. In such cases, appropriate levels simply cannot be determined unless the items are tested by a specialist using transparent methods and inputs. Sector-based approaches are unsuitable as well as incorrect, since they are not based on the structural features that drive pricing inputs and adjustments. Because such leveling practices are not in conformity with ASC 820, the intended quality of information stipulated by that guidance does not reach issuers and auditors, nor can it be used in investor disclosures.

***Question 8: The Board requests comment generally on the potential benefits to investors and the public. Are there additional benefits the Board should consider?***

Improving price transparency will also improve ASC 820 level assignments, and this will benefit investors by improving financial disclosures.

---

<sup>9</sup> SIFMA Fact Book 2017, p. 37.

***Question 11: The Board requests comment generally on the potential unintended consequences of the proposal. Are the responses to the potential unintended consequences discussed in the release adequate? Are there additional potential unintended consequences that the Board should consider? If so, what responses should be considered?***

In answering this question, we rely upon our experience with fair value and ASC 820 reporting to consider the valuation contexts and scenarios most likely to occur as a result of replacing three existing standards with a single new one. Harvest notes the Board’s remark on page 38, that “for easier-to-value securities, particularly exchange-traded securities, requiring the auditor to obtain a price from a different source may not provide better evidence since it is likely based on the same underlying information.” Harvest concurs, and sees little risk in or unintended consequences resulting from the pricing of exchange-traded items. Because Harvest’s pricing methodologies are aligned with ASC 820, for example, we know whether or not trading in an exact security is taking place, with reasonable range and volume; we provide that information to our clients along with the price, level, and models used. We agree that as an industry we should not burden issuers, auditors, and ultimately investors with undue costs for exchange-traded items, especially when it is relatively easy to identify them and make their inputs available; we already identify such items for our clients and give them considerable discounts on prices of traded items, with US listed equities priced free of charge.

At a more systemic level, however, we would like to call the Board’s attention to some lingering practical challenges when it comes to distinguishing “easy” from “hard” to value securities. Our concerns revolve around the ways information is (or is not) currently communicated to auditors. Again, only a small fraction of the total number of securities is actively traded on any given day. This means that the vast majority are not in fact “easy” to value and that their prices are not based on trades. Even so, we often see complex items like alternative investments passed over as easy-to-value because they are mistakenly thought to be mutual funds. Structured products and items with derivative features can also go untested because they carry common issuer names (for example, US GSEs or large investment banks); moreover, most pricing services and custodians do not specifically identify the key structural features that relate to price development. If this informational deficit is not addressed, one potential unintended consequence of allowing an exclusion on so-called “easy” securities is that an auditor could very easily and unknowingly fail to test complex items susceptible to material variances, passing on risk to investors in the process.

***Question 17: Are the scope and objective of the proposed standard clear?***

Harvest thinks that the scope and objective of the proposed standard (A3-4f) are both very clear, and we appreciate all the work that the Board has done to integrate three existing standards into a single, workable new one that takes into account the latest understandings of and approaches to questions of risk. This has obviously been an enormous undertaking. We hope our comments throughout will be received in support of the Board’s judicious and painstaking efforts.



***Question 32: Are there other matters that the auditor should take into account when obtaining an understanding of the nature of the financial instruments being valued? If so, what are they?***

Harvest agrees that attention to the nature of the financial instruments being valued is important, since different risks relate to different structures, as the Board clearly recognizes. Financial instruments may contain both structural complexities and/or valuation complexities within what the Board calls their “nature”. For example, if a newly-issued corporate structured note is readily-traded with reasonable range and volume, it has structural complexity but not valuation complexity on a given valuation date. If the market changes and there is no trading, this item now has both structural and valuation complexity.<sup>10</sup> This is precisely what happened to auction rates and pooled trust preferred securities in the last crisis. As with any meaningful market shift, any preconceived notions about valuation complexity should have been immediately revisited.

***Question 34: Are the requirements for using information from a pricing service clear? Are there other requirements that should be considered? For example, are there other methods used by pricing services to generate pricing information that are not currently addressed in the proposed standard?***

In Appendix 1 (A1-16), the Board outlines factors affecting the relevance of the pricing information provided by a pricing service and how they should be treated by auditors. These fair values are based on:

- a) quoted price in active markets for identical financial instruments;
- b) transactions of similar financial instruments, including basis for comparability and process used (e.g., matrix pricing, algorithm);
- c) instances where there are no active trades, and fair value is constructed using brokers quotes or complex models and algorithms

We agree that it is crucial for an auditor to be fully informed about the way a fair value has been arrived at in order to determine appropriate handling. To that end, we recommend that the Board carefully attend to the different types of pricing services and the ways that their information may or may not be appropriate within the context of the auditor’s obligation to carry out their work in accordance with ASC 820.

Some pricing services and specialists already follow ASC 820 fair value guidance, manufacturing their prices using the highest-level inputs and making all of that information available for their clients. They document whether the price came from trading in the exact security or trading in a close comparable (with appropriate adjustments) and whether it was modeled or based on a broker

---

<sup>10</sup> Cf. the work now being done by Stephani Mason: “Survey participants needed in new research on fair value estimation,” *BVR Wire News* (23 June 2006) <https://www.bvrresources.com/blogs/bvwire-news/2016/06/23/survey-participants-needed-in-new-research-on-fair-value-estimation>

quote, etc. They also provide their clients with transparent information about the inputs and assumptions used to price a given item and the market observability (ASC 820 level) of each input.

Other pricing services use an “expedient process” which provides prices on large volumes of securities in a very time-efficient manner. These prices are manufactured using matrices and algorithms (analogous to the way Zillow estimates the value of all homes based on the sale of a few). The origin of the price (trades, broker quotes, etc.) is not provided with these prices, and neither are the actual inputs used in the calculation of individual prices. Still other pricing services do not manufacture prices at all, but re-sell them from other sources, with no transparency about price development.

Among issuers, it is widely acknowledged and accepted that the use of nontransparent prices requires strong internal controls that use and make available market-participant inputs so that (unnecessary) risks to investors may be avoided. The same should apply to audit use. We also agree with the Board that all methodologies used should conform to applicable financial reporting frameworks (A3-35) - specifically, ASC 820, which requires the use of the highest-level inputs and ASC 820 level assignments tied to the valuation methodology.

***Question 35: Do the requirements included in the proposed standard pose operational challenges for audit firms that use centralized groups? If so, what are they and how could they be addressed in the proposed standard?***

One challenge for pricing desks is that they are unable to collect transparent information from either the issuer (i.e. the custodian) or their pricing services about the origin of the pricing inputs at the individual price level. Secondly, if pricing desks are to make decisions about fair value, valuation difficulty, and risks, they should be required to meet the same standards for knowledge, skill, experience, and professional standing as the specialist.

\*

\*

\*

We thank the Board for its invitation to comment and for its time in considering our remarks. If the Board would find it helpful to discuss them in more detail, we remain at its disposal: please contact Susan DuRoss at 312-823-7051.

With best regards,

Harvest Investments, Ltd.





August 30, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803

Re: PCAOB Rulemaking Docket Matter No. 043 (Proposed Auditing Standards - *Auditing Accounting Estimates, Including Fair Value Measurement*)

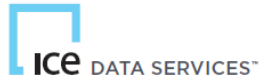
To the Board:

ICE Data Services appreciates the opportunity to comment on the proposed auditing standards, *Auditing Accounting Estimates, Including Fair Value Measurements* (“the Proposal”), published on June 1, 2017 by the Public Company Accounting Oversight Board (“the Board”).

ICE Data Services’ company, Interactive Data Pricing and Reference Data LLC, provides independent evaluations to both auditors and end clients as an input in their valuation process for assets and liabilities required to be measured at fair value. We believe our extensive experience as a third party evaluations provider serving more than 5,000 global organizations can give rise to useful insights concerning the practices and processes that result in high quality evaluations. We believe that this experience closely aligns us with the auditing objectives of understanding information provided by third-party pricing sources and evaluating whether the company has used such information appropriately.

We have focused our comments regarding the proposed requirements specifically on the questions relating to the use of information from third-party pricing sources. In summary, ICE Data Services believes:

- The industry would likely benefit from allowing additional time for pricing services to develop and test new vehicles designed to support implementation of the Proposal, and for the audit community to be trained in using new data and tools for evaluating the relevance and reliability of pricing service information. This could be accomplished by extending the Proposal’s effective data to audits of fiscal years beginning two (2) years following the year of SEC approval, or three (3) years after the year of SEC approval if such approval occurs in the fourth quarter.
- Differences in approach toward valuation of financial instruments can create differing levels of bias risk among pricing services. The Board’s objective of heightening auditors’ awareness of potential management bias and the need for professional skepticism could be advanced if auditors were directed to consider a pricing service’s procedures for



assessing market information when assessing the reliability and relevance of pricing service information.

- The Proposal’s guidance for assessing a pricing service’s experience and expertise could be reinforced by encouraging auditors to consider, among other things: (i) the size and experience levels of the pricing service’s evaluation staff; (ii) the amount and quality of informational resources the pricing service makes available to help both auditors and clients understand the pricing service’s information and methodologies; and (iii) the pricing service’s evaluation quality controls and price challenge process(es).
- The Proposal’s guidance for assessing the relevance of pricing information provided by a pricing service appropriately emphasizes that audit responses should be risk-based, focusing attention on estimates with the greatest risk of material misstatement. We believe that a selective, risk-driven approach is likely to be both more effective and efficient than an effort to validate every security price reflected in a company’s financial statements. Further, considerations of cost and potential unintended consequences make it desirable to avoid materially broadening the scope of market data required to conduct an audit. The risk of unintended reduction in market data availability could arise if originators of quote and trade data such as securities dealers and investment firms perceived that confidential information they currently share with pricing services might be released to other parties beyond the scope of existing agreements.
- When pricing information from third parties is based on transactions of similar instruments, we believe the additional audit procedures to be performed could include consideration of the relative roles played by evaluators employed by (i) the applicable pricing service; (ii) regular and consistent contacts with market participants; and (iii) algorithms, in the applicable pricing service’s determinations of comparable transactions.
- Viewing bond comparability as a point along a continuum instead of a simple binary variable permits rank-ordering bonds according to their degree of similarity to the bond being valued. An ability to rank potentially comparable bonds using objective criteria can contribute to the relevance of pricing service information by tying estimations to the most closely comparable instruments while limiting the influence of data for instruments relatively less similar to the bond being evaluated.

### **Background on ICE Data Services**

As an independent pricing vendor, ICE Data Services provides evaluated pricing and calculated pricing across a wide spectrum of instruments for more than 40 years. ICE Data Services is the marketing name for multiple entities in the pricing business described below. Interactive Data Pricing and Reference Data LLC (“Interactive Data”) is a Registered Investment Adviser with the



SEC under the Investment Advisers Act of 1940. The company provides global security evaluations designed to support financial institutions' and investment funds' pricing activities, research and portfolio management. Interactive Data offers evaluations for approximately 2.7 million fixed income instruments (including loan products), as well as Fair Value Information Services for international equities, options and futures, and valuations for complex structured products.

ICE Data Services has invested considerable resources to expand our coverage and provide our clients with greater transparency and insight into the inputs utilized to derive our evaluated and calculated prices, as well as to help automate and streamline key valuations processes.

ICE Data Services maintains active collaboration with both auditors and reporting entities through working groups, client sessions and regular meetings to discuss valuation and price validation topics. Members of our staff also have participated on the Pricing Sources task Force within the PCAOB's Standing Advisory Group.

### **Effective date**

The Board seeks comment on the amount of time auditors would need before the proposed new auditing standard and amendments become effective.

ICE Data Services believes that if the proposed standard and amendments are adopted by the Board and approved by the SEC, auditing firms and their clients will seek additional information from third party pricing providers to assist with compliance. The audit community will require a period of learning and training in using new data and tools that are expected to become available to assist them with evaluating the relevance and reliability of pricing information provided by a pricing service. In addition, pricing services would require time to develop and test new vehicles meant to enhance transparency of pricing information as the proposed standard contemplates. Consequently, we believe that the industry as a whole would benefit from extending the effective date to audits of fiscal years beginning two years after the year of the SEC approval, or three years after the year of SEC approval if that approval occurs in the fourth quarter.

### **Avoiding bias in fair value estimates**

The Proposal's stated objectives include "*emphasizing that accounting estimates should be free from bias that results in material misstatement,*" (page 16-17) and prompting auditors "*to devote greater attention to addressing potential management bias in accounting estimates, while reinforcing the need for professional skepticism.*" (page 3)



When discussing third-party pricing information, the Proposal distinguishes among different types of third parties and cites common characteristics of pricing services that reduce the risk of bias, unless a relationship exists by which company management can directly or indirectly control or significantly influence the pricing service (page 36-37).

Although the Proposal recognizes that pricing services may need to be treated differently from other third party pricing sources under some circumstances, we observe that levels of bias risk can vary across different pricing services, due to differences in approach toward valuation of financial instruments. We believe that a focused awareness of such distinctions could strengthen the audit process.

For any security or category of securities, market quotations available in the marketplace may be biased, and even reported trades, may not all be equally representative of fair value. A valuation approach that entails automatically combining or averaging market information received from a variety of sources without human oversight may be susceptible to bias, or even manipulation, by certain market participants submitting raw data to the third party. Additionally, approaches that systemically adjust to client price challenges without relying on human oversight to confirm the validity and context of the challenge data can equally create a bias, or even manipulation.

Accordingly, we believe that:

- The diversity of market data creates an important role for human oversight in the analysis, weighting, and synthesis of such data for the creation of pricing information.
- A valuation approach that treats each piece of incoming information as a distinct input that must be validated and its significance determined by a combination of sophisticated technology and evaluator oversight, may reduce the risk that unrepresentative data submitted by an interested party could influence the pricing information.
- The Board's objective of heightening the need for professional skepticism could be advanced if auditors were directed to consider a pricing service's procedures for assessing market information when assessing the reliability and relevance of pricing service information.

When filtering market data for potential use in our pricing models, ICE Data Services applies an approach akin to the concept of "professional skepticism" that auditors are expected to practice toward data provided by their clients. ICE Data Services performs a security and/or sector review that helps us determine whether or not trade or bid information is consistent with other recent information available to use or derived by us. Trade and bid information will be reflected in our



evaluations for comparable bonds, to the extent the information impacts our opinion of what a holder would receive for those securities. If we determine that trade or bid information is not consistent with other information available to us, the trade or bid will not be reflected in that day's evaluation.

Our evaluated pricing process also includes intra-day, weekly, and/or monthly quality controls in support of our evaluations.

### **Reliability of pricing service information**

On pages A1-15 and pages A3-35-37, the Proposal mentions three factors that affect the reliability of pricing information provided by a pricing service:

- a) The experience and expertise of the pricing service relative to the types of financial instruments being valued, including whether the financial instruments being valued are routinely priced by the pricing service;
- b) Whether the methodology used by the pricing service to evaluate or value the financial instrument being tested is in conformity with the applicable financial reporting framework; and
- c) Whether the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service.

We agree that the above factors affect reliability, and that a pricing service's experience and expertise should be gauged in context of the types of financial instruments being valued and whether those instruments are "routinely priced" by the pricing service.

We suggest the Board consider augmenting the above with wording such as:

When assessing a pricing service's experience and expertise, auditors may consider (among other things):

- The number of evaluators employed by the service, and the length and nature of the evaluators' financial industry experience.
- The degree to which the informational resources that the pricing service makes available to assist auditors and clients in fulfilling their responsibility to:
  - understand information provided by third-party pricing sources; and



- determine whether the methodology used by the pricing service to evaluate/value the financial instrument being tested is in conformity with the applicable financial reporting framework.
- The evaluation quality controls practiced by the pricing service.
- Evidence that the pricing service maintains a rule-governed price challenge process supported by appropriate technology resources. This should be supported by suitable record keeping policies and providing controls around these processes.

In addition, we note that the Board used terminology such as fair value estimates, fair values and determining fair value when describing the role of pricing services (page A1-15). As indicated in guidance previously issued by the Securities and Exchange Commission<sup>1</sup>, and consistent with the industry view of the role of a pricing services, pricing services provide evaluated pricing or other pricing information designed to assist the users in determining the fair value of their portfolio securities. Pricing services do not engage in determining fair value for clients. As such we suggest that the terminology used in the standard to describe the role of a pricing service will be revised to be more consistent with the SEC and industry view on the role of a pricing service.

### **Relevance of pricing service information**

On pages A1-16-17 and A3-35-37, the Proposal enumerates factors that affect the relevance of pricing information provided by a pricing service and provides direction on audit procedures for evaluating the relevance of pricing service information, depending on the inputs used by the pricing service:

- a) quoted prices in active markets for identical financial instruments
- b) transactions of similar financial instruments, or
- c) information other than recent transactions for the same or similar financial instruments.

The Proposal further states:

- For pricing information based on transactions of similar financial instruments, the auditor should perform additional audit procedures to evaluate the process used by the pricing service.
- When there are no recent transactions for the same or similar financial instruments, the auditor should perform additional audit procedures, including evaluating the

---

<sup>1</sup> See Money Market Fund Reform; Amendments to Form PF; Release No. 33-9616, IA-3879; IC-31166; FR-84; File No. S7-03-13 and corresponding Valuation Guidance Frequently Asked Questions.



appropriateness of the valuation method and the reasonableness of observable and unobservable inputs used by the pricing service.

ICE Data Services agrees with the overall spirit of the above passages, which is consistent with the principles set forth in ASC 820. In particular, we believe that the most effective approach for testing the reasonableness of pricing service's estimates is to compare estimated values with observable market data, where possible: trades, dealer quotes, and other relevant observable information including comparable securities.

We also agree with the Proposal's emphasis that audit responses should be risk-based, enabling the auditor to focus attention on estimates with the greatest risk of material misstatement. Citing AS 2301, the Proposal notes that as the assessed risk of material misstatement increases, the evidence from substantive procedures that the auditor should obtain also increases. On page A1-14, the Proposal outlines matters the auditor should take into account to identify and assess risks of material misstatement related to the fair value of financial instruments.

Close tying of audit responses for financial instruments to risks of material misstatement has the benefit of limiting the need for auditors to sharply expand their demands for market data. ICE Data Services has long argued for a selective approach to validating third-party pricing information. Rather than examining prices for all securities or a randomly drawn sample of portfolio assets, we believe that both asset owners and auditors benefit when they concentrate their price verification efforts on selected samples of assets drawn from asset types associated with relatively high valuation risks. We believe the three-part division set out in the Proposal provides useful guidance for a selective and risk-based approach for auditing information from pricing services.<sup>2</sup>

Numerous fixed-income instruments are neither actively traded nor actively quoted. Such instruments may be valued based on comparable securities for which current market data is available. Pricing service's methodologies for such securities require making judgments regarding the criteria for identifying comparable instruments and the appropriate price or yield spread to apply between a comparable and the security in question. In such instances, it is impractical for an auditor to test exhaustively each individual evaluation and assess all associated input data. Consequently, a selective, risk-driven approach is likely to be both more effective and more efficient than an effort to validate every fair value determination in a company's financial

---

<sup>2</sup> As stated in our comment letter on the 2014 Staff Consultation Paper: *"We believe the goals of Auditing Standard 12, "Auditing Standard No. 12: Identifying and Assessing Risks of Material Misstatement," would be best served by directing auditors to focus their attention on those areas of financial reporting that pose the highest risks to reliable financial reporting. With regard to fair value measurements, the highest risk areas might include complex securities, thinly traded securities, and instruments for which no current market data is available."*



statements. The selective approach requires that the auditor develop an understanding of the assets, liabilities, and third-party data in order to assess which data is most relevant for assessing accounting risk. This spares both auditors and third parties the unnecessary effort of processing large amounts of data that may have little value for assessing the risk of material misstatements.

In addition, we believe that considerations of cost and potential unintended consequences make it desirable for a standard to guide auditors toward a risk-based sampling approach and, conversely, to avoid materially broadening the scope of market data required to conduct an audit.

Enlarging the scope of market data required by auditors will impose economic costs on both auditors and reporting entities. Pricing services can be expected to pass through any costs they incur for providing additional data and developing additional services to their direct clients, who include auditors. In addition, auditors can be expected to pass along to clients any costs they incur to obtain and examine a larger universe of transaction-related data. In a recent speech Jay Clayton, the chairman of the Securities and Exchange Commission, signaled increased attention to costs of compliance, including indirect costs, when the SEC formulates and implements rules.<sup>3</sup>

The risk of unintended consequences could arise if originators of market data, such as securities dealers and investment firms, perceived that quote and trade data they currently share with third parties on a confidential basis might be released to other parties beyond the scope of existing agreements. If data originators pulled back from sharing such data, the amount of market data available to both auditors and market participants could shrink -- an unintended consequence that would run directly counter to the auditing standard's desired effect.

### **Some market data is subject to confidentiality agreements**

Despite recent advances toward greater transparency into market inputs, institutional arrangements often impede pricing services from releasing all relevant inputs used in their evaluation process. In practice, even inputs that may be judged "observable" under ASC 820 may have limited visibility outside a narrow circle of market participants due to various constraints on redistribution. For example, many agreements between ICE Data Services and its market data sources include confidentiality provisions that permit us to utilize their trade or quote data to produce evaluations, but bar us from displaying or sharing their data beyond our organization. We are also barred from sharing information from trade confirmations that clients submit to us through our challenge process.

---

<sup>3</sup> Remarks at the Economic Club of New York, July 12, 2017, <https://www.sec.gov/news/speech/remarks-economic-club-new-york>



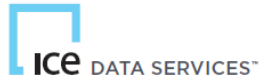


### **Identifying Comparable Transactions and Quantifying Their Relevance**

On pages A3-35 through 37, the Proposal states that when the pricing information is based on transactions of similar instruments, additional audit procedures would be required to evaluate the process used by the pricing service. The additional audit procedures may include, for example, evaluating how comparable transactions are selected and monitored or how matrix pricing is developed.

We believe the following observations about similar financial instruments can be pertinent to the audit process.

- Selection of comparable transactions is a dynamic process whose outcome can be enhanced by the addition of human judgment alongside of algorithms that seek to identify financial instruments with common features. A list of specific instruments considered comparable to the instrument being valued constitutes one of the assumptions that market participants would use when pricing the financial instrument. Therefore, we believe that the additional audit procedures to be performed to evaluate the process used by a pricing service when pricing information is based on transactions of similar instruments could include consideration of the relative roles played by evaluators employed by the pricing service, regular contracts with market participants, and algorithms, in the pricing service's determinations of comparable transactions.
- Comparability among financial instruments need not be a binary variable. Viewing bond comparability as a point along a continuum allows for ranking a list of similar bonds according to their degree of similarity to the bond being valued. An ability to rank potentially comparable bonds using objective criteria can contribute to the relevance of pricing service information in two ways:
  - Providing a higher level of confidence that the most relevant instruments were used to produce evaluations based on transactions of similar instruments.
  - Making it possible for other relevant market data, such as firm quotes for instruments most similar to the bond being valued but have no recent transactions, to influence the pricing information along with transactions in a bond that might have relatively less similarity to the bond being valued. We believe that situations arise in which market participants would consider a firm quote for a closely similar bond to be a more reflective data point than a recent transaction in a distantly similar bond.



## Summary

ICE Data Services appreciates the opportunity to present our views on the Proposed Auditing Standard, *Auditing Accounting Estimates, Including Fair Value Measurements* and Proposed Amendments to PCAOB Auditing Standards. We support the proposal to develop a new standard that would consolidate and augment provisions from a number of existing audit standards that address this subject. We strongly believe that the goals of reinforcing best practices in auditing fair value estimates and evidence obtained from third party pricing sources, updating existing standards to remove perceived inconsistencies, and further integrating the requirements of the existing standards with those of the risk-assessment standards, which would be best served by adopting the proposal subject to the following added considerations:

- Extend the effective date to audits of fiscal years beginning two years after the year of SEC approval, or three years after the year of SEC approval if that approval occurs in the fourth quarter.
- To further reduce the risk of manipulation of third party pricing services, incorporate language encouraging auditors to consider a pricing service's procedures for assessing market information when assessing the reliability and relevance of pricing service information.
- Augment the guidance regarding reliability of pricing service information by encouraging auditors to consider: the number and financial industry experience levels of evaluators employed by the service; the extent of informational resources that the pricing service provides to assist users in understanding its data and evaluation methodologies; and the service's evaluation quality controls and price challenge processes.
- Guide auditors to practice a risk-based sampling approach toward assessing the relevance of pricing service information. Focusing audit attention on estimates with the greatest risk of material misstatement aligns with existing auditor standards and can help to ensure that the standard will not materially broaden the scope of market data required to conduct an audit. Expanding data requirements would impose economic costs on auditors and reporting entities, and may also induce market data originators such as securities dealers and investment firms to stop sharing their confidential market data with pricing services.
- When pricing information is based on transactions of similar instruments, the additional audit procedures to be performed could usefully include consideration of the relative roles played by the pricing service's evaluators, regular contacts with market participants, and algorithms, in the pricing service's determinations of comparable transactions. We believe audit quality also could benefit from viewing bond comparability as a point along a continuum with many possible values, and from considering the pricing service's ability to rank potentially comparable bonds using objective criteria.



We look forward to working with the Staff, the PCAOB and the audit community on this important issue.

Kind regards,

A handwritten signature in black ink, appearing to read 'M. Heckert', written over a light blue horizontal line.

Mark Heckert

Vice President, Pricing and Analytics

ICE Data Services



August 30, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

Re: PCAOB Rulemaking Docket No. 043

Dear Board Members:

The Audit and Assurance Services Committee of the Illinois CPA Society (“Committee”) is pleased to comment on the PCAOB’s proposed auditing standard for *Auditing Accounting Estimates, Including Fair Value Measurements* and amendments to other PCAOB auditing standards. (Docket Matter No. 43), dated June 1, 2017. The organization and operating procedures of the Committee are reflected in the attached Appendix A to this letter. These comments and recommendations represent the position of the Illinois CPA Society rather than any members of the Committee or of the organizations with which such members are associated.

#### **GENERAL COMMENTS:**

As a Committee, we agree with efforts made by the PCAOB and believe the proposed standard and replacement of AS 2501, superseding AS 2502 and amendments to AS 1015, AS 1105, AS 2110, AS 2301, AS 2401, and AS 2805 as well as rescinding AI 16 are needed to help drive audit quality. We believe the proposal scope, objective, and guidance is sufficiently clear, and reflects an appropriate general perspective of both current practice and industry trends. As such, we believe the proposed standard is appropriate and explains the use of risk based approach in audit estimates and fair value measurements. Our direct response is limited to the following questions.

#### **PCAOB QUESTIONS:**

Question 9: The board requests comment generally on the potential costs to auditors and companies they audit. Are there additional costs the board should consider?

Response: Yes, but noting that adequate procedures normally should have been done regardless of the new standard. However, the new standard will require CPA firms to enhance their procedures to be in line with the new procedures. We believe the new standard is creating a necessary procedure to better keep estimates free of bias. In addition, as noted in the proposal, cost to possibly rely on specialist, cost for documentation, and cost for risk assessment as required are welcomed procedures. The proposal notes much that we agree on, however, we would like to note that passing costs onto the client may not be as easily accomplished for large or small firms but in most cases more difficult for smaller firms. Therefore, there could be assistance in education of our clients as to the reason that these new procedures are required. Since management of the client is ultimately responsible for their estimates, it would be greatly appreciated if the standard offered suggestions for the education of the client and the needed procedures. If the client is prepared and understands what the requirements are, it is more likely that their cooperation can lead to a better transition and lessen first year costs for auditors.



Question 12: The Board requests comment generally on the analysis of the impacts of the proposal on EGCs. Are there reasons why the proposal should not apply to audits of EGCs? What impact would the proposal likely have on EGCs, and how would this affect efficiency, competition, and capital formation?

Response: No. We believe the proposed standard should apply to EGCs in order to ensure a consistent quality, and reliance on the financial statements of issuers by capital markets, rather than facilitate an even further inherent market discount for certain types of entities seeking capital. This is of particular relevance considering that the financial statements of EGCs contain significant estimates (proposal referenced the five SIC codes with the highest total assets for EGC filers as 1) REITS; 2) state commercial banks; 3) pharmaceutical preparations; 4) federally chartered savings institutions; and 5) crude petroleum and natural gas).

Question 18: Are there challenges in tailoring the scalability of the auditor's response to identified risks of material misstatement as described in the proposal? If so, what are they and how can they be addressed?

Response: Yes, as noted in the proposal, there are many attributes that will determine respective responses to the risks of material misstatement. Generally speaking, determining an asset retirement obligation would have more risk than an estimate for depreciation, at least in most cases. Therefore, the challenges in tailoring will be on an estimate to estimate basis, but there could also be instances where testing procedures might overlap and used for more than one estimate. For example, the auditor will start with the testing of the procedures used for an overall determination of the company's preparation of their estimates. From there, the auditor will test the procedures on an estimate to estimate basis. Within all this the auditor needs to keep in check the potential for bias in management's estimates. However, as noted above, as the auditor develops/performs procedures to test the estimates, the overlapping of management's controls may allow the auditor to better understand/scale procedures over each estimate both individually and in aggregate.

The Committee appreciates the opportunity to express its opinion on this matter. We would be pleased to discuss our comments in greater detail if requested.

Sincerely,

**James R. Javorcic, CPA**

Chair, Audit and Assurance Services Committee

**Scott Cosentine, CPA**

Vice Chair, Audit and Assurance Services Committee



## APPENDIX A

### AUDIT AND ASSURANCE SERVICES COMMITTEE ORGANIZATION AND OPERATING PROCEDURES 2017 – 2018

The Audit and Assurance Services Committee of the Illinois CPA Society (Committee) is composed of the following technically qualified, experienced members. The Committee seeks representation from members within industry, education and public practice. These members have Committee service ranging from newly appointed to almost 20 years. The Committee is an appointed senior technical committee of the Society and has been delegated the authority to issue written positions representing the Society on matters regarding the setting of audit and attestation standards. The Committee's comments reflect solely the views of the Committee, and do not purport to represent the views of their business affiliations.

The Committee usually operates by assigning Subcommittees of its members to study and discuss fully exposure documents proposing additions to or revisions of audit and attestation standards. The Subcommittee develops a proposed response that is considered, discussed and voted on by the full Committee. Support by the full Committee then results in the issuance of a formal response, which at times includes a minority viewpoint. Current members of the Committee and their business affiliations are as follows:

#### **Public Accounting Firms:**

##### **National:**

Timothy Bellazzini, CPA	Sikich LLP
Todd Briggs, CPA	RSM US LLP
Scott Cosentine, CPA	Ashland Partners & Company LLP
Heidi DeVette, CPA	Johnson Lambert LLP
James J. Gerace, CPA	BDO USA, LLP
Michael R. Hartley, CPA	Crowe Horwath LLP
James R. Javorcic, CPA	Mayer Hoffman McCann P.C.
John Offenbacher, CPA	Ernst & Young LLP
Michael Rennick	Grant Thornton LLP
Elizabeth J. Sloan, CPA	Grant Thornton LLP
Richard D. Spiegel, CPA	Wipfli LLP
Kevin V. Wydra, CPA	Crowe Horwath LLP

##### **Regional:**

Jennifer E. Deloy, CPA	Marcum LLP
Michael Ploskonka, CPA	Selden Fox, Ltd.
Genevra D. Knight, CPA	Porte Brown LLC
Andrea L. Krueger, CPA	CDH, P.C.

##### **Local:**

Arthur Gunn, CPA	Arthur S. Gunn, Ltd.
Lorena C. Johnson, CPA	CJBS LLC
Mary Laidman, CPA	DiGiovine, Hnilo, Jordan & Johnson, Ltd.
Carmen F. Mugnolo, CPA	Trimarco Radencich, LLC
Jodi Seelye, CPA	Mueller & Company LLP
Joseph Skibinski, CPA	



**Industry/Consulting:**

Sean Kruskol, CPA

Cornerstone Research

**Educators:**

David H. Sinason, CPA

Northern Illinois University

**Staff Representative:**

Heather Lindquist, CPA

Illinois CPA Society



August 30, 2017

Office of the Secretary  
PCAOB  
1666 K Street, NW  
Washington, DC 20006-2803  
USA

submitted via email to [comments@pcaobus.org](mailto:comments@pcaobus.org)

Institut der Wirtschaftsprüfer  
in Deutschland e. V.

Wirtschaftsprüferhaus  
Tersteegenstraße 14  
40474 Düsseldorf  
Postfach 32 05 80  
40420 Düsseldorf

TELEFONZENTRALE:  
+49 (0) 211 / 45 61 - 0

FAX GESCHÄFTSLEITUNG:  
+49 (0) 211 / 4 54 10 97

INTERNET:  
[www.idw.de](http://www.idw.de)

E-MAIL:  
[info@idw.de](mailto:info@idw.de)

BANKVERBINDUNG:  
Deutsche Bank AG Düsseldorf  
IBAN: DE53 3007 0010 0748 0213 00  
BIC: DEUTDE33XXX  
USt-ID Nummer: DE119353203

**PCAOB Release No. 2017-002, June 1, 2017, PCAOB Rulemaking Docket  
Matter No. 043: Proposed Auditing Standard – Auditing Accounting  
Estimates, Including Fair Value Measurements And Proposed  
Amendments To PCAOB Auditing Standards**

Dear Sirs,

The IDW appreciates the opportunity to comment on the above mentioned Release, hereinafter referred to as "the Release". We also commented on the Staff Consultation Paper: Auditing Accounting Estimates and Fair Value Measurements in a letter dated November 3, 2014. In commenting below on specific aspects of the current proposal we refer to that letter as "our previous letter".

In this letter, we express general support for the PCAOB's initiative, and then comment on those aspects of the Release with which we have concerns or upon which we hold firm views. We have chosen not to respond to individual questions posed throughout the Release.

***General Support***

As accounting standard setters continue to revise financial reporting requirements, both the prevalence and magnitude of estimates required to be accounted for and disclosed within financial statements are of increasing significance to investors and others who may seek to rely thereon.

As stated in our previous letter, we agree that the revision of the PCAOB's interim auditing standards is needed to address recent changes in both financial

GESCHÄFTSFÜHRENDER VORSTAND:  
Prof. Dr. Klaus-Peter Naumann,  
WP StB, Sprecher des Vorstands;  
Dr. Klaus-Peter Feld, WP StB;  
Dr. Daniela Kelm, RA LL.M.





page 2/5 to the comment letter to the PCAOB dated August 30, 2017

reporting, and developments in auditing practice, and also that issuing staff guidance cannot be the long-term solution, so that we support the issuance of a single standard mirroring ISA 540 to replace the existing PCAOB auditing standards in this area.

The reference to the 2008 financial crisis at the top of page 6 of the Release points to the various challenges, including market uncertainty associated with several of the types of complex accounting phenomena that accounting estimates are increasingly designed to portray.

***Impact of Inherent Limitations Relating to Both Accounting Estimates and Management Bias on the Expectations Gap – Need for Balanced Clarification***

In our previous letter, we cautioned that any project on accounting estimates would need to be sensitive to the risk of increasing public expectations concerning this aspect of the audit.

Whilst we support calls for the auditors' exercise of professional skepticism as a means to address management bias, we firmly believe that recognition of the inherent limitations pertaining to recognition and measurement of accounting estimates (i.e., primarily an accounting issue) as well as the identification and evaluation of management bias (i.e., primarily an auditing issue) is needed to counter unrealistic expectations in this area.

**Inherent Limitations – Recognition and Measurement of Accounting Estimates**

Accounting estimates are subjective in nature and inherent estimation uncertainty is a key feature that neither standard setters, preparers of financial statements, nor auditors - however diligent their work – can eliminate. We appreciate that AS 1015.11 already explains that there are inherent limitations of an audit in respect of accounting estimates (professional judgement is needed; audit evidence is persuasive rather than convincing). At various points, the Release points out a number of limitations on the auditor's ability to address the special challenges posed by accounting estimates. It is disappointing that the proposed standard does not include a comprehensive analysis distinguishing those that an auditor can address (e.g., analytical ability), can partly address (e.g., some features of management bias) from those that cannot be addressed (e.g., time constraints, limits on available information), as mentioned on pages 30 et seq. of the Release.



page 3/5 to the comment letter to the PCAOB dated August 30, 2017

#### Inherent Limitations – Identification and Evaluation of Management Bias

The potential for management to be biased in making accounting estimates means that accounting estimates may be susceptible to “distortion” ranging from willful and fraudulent manipulation to a far less tangible, subconscious bias. Notwithstanding the special features of fraud, the former may generally be easier for an auditor to identify and evaluate than the latter.

Therefore it is essential that the public understand that there are also inherent limitations in regard to identification and evaluation of management bias that impact auditor’s ability to determine whether accounting estimates are free from management bias, not least because financial reporting frameworks often permit a range of possible outcomes, and also because there is generally no “bright line” in financial reporting frameworks to distinguish between reasonable judgmental latitude, subconscious management bias and willful biased manipulation.

Neither AS 1015 nor proposed AS 2501 explain the limitations of an audit arising from the inherent limitations an auditor may face in regard to identifying and evaluating management bias in accounting estimates. We suggest the PCAOB address this, perhaps by adding text within AS 1015, such that the public’s expectations of auditors can be well informed and reasonable.

#### ***Portrayal of the Auditor’s Consideration of Management Bias as a Third and Distinct Part of the Objective***

The Release proposes the following objective in AS 2501.03: “The objective of the auditor is to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework, and are free from bias that results in material misstatement.”

We are concerned that the presentation of freedom from bias as a third and distinct determination could be misleading in that it may imply an auditor override i.e., a determination going beyond the auditor’s determination of whether accounting estimates are a) reasonable and b) accounted for and disclosed in conformity with the applicable financial reporting framework. It would not be appropriate for the PCAOB as an auditing standard setter to define the auditor’s role so as to require the auditor introduce prudence or neutrality over and above the requirements of the applicable financial reporting framework. We do not believe that this is the PCAOB’s intent as elsewhere in its suite of standards the PCAOB accords this phenomenon different treatment.



page 4/5 to the comment letter to the PCAOB dated August 30, 2017

Furthermore, given the inherent limitations noted above, it is not possible for auditors to meet the objective of eliminating management bias.

***Need for Clear and Consistent Treatment of the Potential for Management to be Biased in Making Accounting Estimates***

As explained, we are of the view that the auditor's consideration of management bias does not constitute a third and distinct determination, but is an integral part of the auditor's overall determination of reasonableness – accounting estimates are considered individually but also in aggregate to determine whether they are reasonable in the context of the applicable financial reporting framework.

Paragraph .16 of the proposed auditing standard sets forth requirements for the evaluation of the reasonableness of significant assumptions, but does not explain what "reasonable" is intended to be in the context of accounting estimates in the context of the applicable financial reporting framework. We note that ED ISA 540.A2 includes text to explain reasonableness as a key concept and suggest the PCAOB might draw on this in finalizing the proposed standard.

As we explain below, the PCAOB's suite of standards needs to be consistent and clear as to the phenomenon of management bias – specifically whether it is only a fraud risk or also a further type of risk, and its consideration in the audit. Specifically:

- as we have noted, the proposed objective of AS 2501 appears to view it as a third determination, implying an auditor override;
- pages 28-29 of the Release imply it may be a different or non-fraud risk i.e., resulting from CEO/CFO-specific optimism or overconfidence;
- the risk assessment, risk response and fraud standards AS 2110, AS 2301 and AS 2401 treat management bias as just one of a number of fraud risks;
- AS 2401.63 et seq. requires a retrospective review of significant accounting estimates reflected in the financial statements of the prior year, treating it as a fraud risk.
- AS 2810.27 requires the auditor to perform a test for possible management bias when each accounting estimate included in the financial statements was individually reasonable, thus treating it as an integral part of the auditor's evaluation of audit results – however it is unclear whether this is intended as a risk response to fraud or to other factors such as those noted in the second bullet point above;



page 5/5 to the comment letter to the PCAOB dated August 30, 2017

If indeed the Board intends management bias to extend beyond a fraud risk, it would be helpful to highlight the phenomenon of management bias as a specific risk factor in paragraph .04 of the proposed auditing standard. It would also be helpful to explain the role of professional skepticism in relation to management bias as well as to fraud in the third Note to paragraph .05 of the proposed auditing standard.

**Desirability of Alignment with the International Standards on Auditing (ISA)**

We refer to our previous letter in which we also referred to the desirability of aligning PCAOB standards with their corresponding ISA to the maximum extent possible, as well as our belief that it is not appropriate for the PCAOB to go further than the IAASB in requiring the auditor perform additional procedures that are based on guidance as opposed to requirements within the ISAs.

As the Board is aware, the exposure draft of Proposed ISA 540 (Revised): Auditing Accounting Estimates and Related Disclosures was issued earlier this year for comment.

We would like to reiterate our calls for maximum possible alignment and urge the two respective Boards to coordinate in this regard.

If you have any questions relating to our comments in this letter, we should be pleased to discuss matters further with you.

Yours truly,

Klaus-Peter Feld  
Executive Director

Gillian Waldbauer  
Head of International Affairs



The Association of  
Accountants and  
Financial Professionals  
in Business

August 9, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street NW  
Washington, DC 20006-2803

**Re: PCAOB Rulemaking Docket Matter No. 43/Release No. 2017-002, Proposed Auditing Standard – *Auditing Accounting Estimates, Including Fair Value Measurements* and PCAOB Rulemaking Docket Matter No. 44/Release No. 2017-003, Proposed Amendments to Auditing Standards for Auditor’s Use of Specialists**

Dear Board and Staff Members:

This letter provides the comments of the Financial Reporting Committee (FRC) of the Institute of Management Accountants (IMA) on the Public Company Accounting Oversight Board’s (PCAOB or Board) Proposed Auditing Standard, *Auditing Accounting Estimates, Including Fair Value Measurements* (Estimates Proposal) and the *Proposed Amendments to Auditing Standards for Auditor’s Use of Specialists* (Specialists Proposal). We have chosen to provide one combined letter for the two Proposals as we believe the development of accounting estimates for financial reporting and the possible use of specialists in that process are interdependent in a great number of situations, particularly for more complex estimates. The Proposals recognize this interdependence through numerous cross references between the two documents.

The IMA is a global association representing over 90,000 accountants and finance team professionals. Our members work inside organizations of various sizes, industries and types, including manufacturing and services, public and private enterprises, not-for-profit organizations, academic institutions, government entities and multinational corporations. The FRC is the financial reporting technical committee of the IMA. The committee includes preparers of financial statements for some of the largest companies in the world, representatives from the world’s largest accounting firms, valuation experts, accounting consultants, academics and analysts. The FRC reviews and responds to research studies, statements, pronouncements, pending legislation, proposals and other documents issued by domestic and international agencies and organizations. Additional information on the FRC can be found at [www.imanet.org](http://www.imanet.org) (About IMA, Advocacy Activity, Areas of Advocacy, Financial Reporting Committee).

We previously commented on the August 19, 2014 PCAOB Staff Consultation Paper on *Auditing Accounting Estimates and Fair Value Measurements* (FRC letter dated February 25, 2015) and the May 15, 2015 PCAOB Staff Consultation Paper on *The Auditor’s Use of the Work of Specialists* (FRC letter dated July 15, 2015). We are pleased that the Proposals address some of the matters raised by us and many others. However, the Proposals present no clear evidence which indicates that the audit deficiencies found by the PCAOB related to accounting estimates and the use of specialists result from deficiencies in the existing auditing standards. Accordingly, we are not convinced that new or revised standards are required. We are concerned that the Proposals may result in incremental work not necessitated by circumstances but by fear of inspections. We do support changes to revise the organization of the existing auditing standards to make them more logical and easier to apply.

Below we share our concerns and observations regarding the Proposals.



### **Management's Responsibility vs Tone of Proposals**

As noted in the Estimates Proposal, financial reporting requirements have called for more and more accounting estimates over the years, often having a significant impact on results of operations and financial position. And many of these recent requirements involve complex processes and methods.

Numerous examples of accounting estimates are included in the Proposals. For example, the Estimates Proposal lists certain valuations of financial and non-financial assets, impairments of long-lived assets, allowances for credit losses, contingent liabilities, revenues from contracts from customers, valuation of certain liabilities, fair value of financial instruments, valuations of assets and liabilities in a business combination, inventory valuation allowances, and equity-related transactions. And Figure 2 in the Specialists Proposal includes several of these as well as some others in a list of fourteen examples of activities that involve the work of specialists.

While not stated explicitly in the Proposals, accounting estimates could be arrayed on a continuum ranging from "simple" to "complex." For example, it is common for companies to accrue estimated payables such as a month's utility expense – based on monthly averages or perhaps some even more accurate internal record keeping. Companies thus record expenses in periods in which they are incurred even though invoices that include more precise measures are not received until after the closing process is complete. These would be examples of "simple" accounting estimates which can be prepared by most company accounting staff without the need of specialists.

The "complex" estimates include such matters as asset retirement obligations to decommission a nuclear power plant many years in the future and the determination of oil & gas reserves used in the amortization of exploration and development costs and used for impairment evaluations of oil & gas properties. While such estimates lend important credibility to financial reporting, these "complex" estimates obviously involve a great deal of judgment and their ultimate accuracy is not knowable until many years into the future. And most importantly, the skills involved in making knowledgeable estimates go well beyond accounting and require individuals with special skills.

The inclusion of only certain accounting estimates in Figure 2 of the Specialists Proposal implies that the PCAOB believes there is a bright dividing point on the above continuum of "simple" to "complex" accounting estimates. For certain estimates, it is an important management judgment as to whether expertise beyond that in the company accounting/finance function is needed. For example, consider allowances for credit losses. For companies with a relatively stable customer base and many years of experience therewith, accounting personnel may feel quite comfortable estimating credit losses. However, for a large bank, such process is likely to involve company personnel specialized in at least credit and legal matters. Similarly, inventory valuation allowances might well be reliably estimated by company accounting personnel in certain cases but require manufacturing, sales, and legal specialists to assist in other cases.

Our point is not just to take issue with the listing in Figure 2 of the Specialists Proposal. Rather, it is to note that in all cases along the continuum described above financial management must judge whether it has sufficient expertise within its own function to make reliable accounting estimates. If not, financial management will have to determine whether to "make or buy" such expertise. In other words, management will determine if such expertise exists within the company and can be used, and if not whether it is cost





beneficial to hire such expertise, or use outside specialists. Management takes this responsibility quite seriously.

The Securities and Exchange Commission (SEC) requires companies to include disclosure about critical accounting policies and estimates in Management's Discussion and Analysis. The estimates that have the greatest impact on the financial statements, and/or involve the greatest amount of management judgment are so disclosed by companies. The SEC expects companies to provide sensitivity analysis information to provide investors and other users with an understanding of the subjectivity involved. Financial management takes seriously its responsibility to provide accounting estimates and related disclosures according to generally accepted accounting standards and SEC requirements.

We are concerned that the tone of the Proposals asserts a strong predisposition by management to present its financial statements in a biased manner. In fact, the word "bias" or a form thereof is used 124 times in the Estimates Proposal and five times in the Specialists Proposal. Further, "moral hazard" is a prominent justification given for the positions taken in the Specialists Proposal and is also mentioned in the Estimates Proposal. Together, these words and notions suggest a strong prejudice that management will not act in the best interests of investors and other users of their financial statements. We can certainly understand emphasizing the need for auditor skepticism, but our reading of these proposals leads us to believe that the PCAOB believes auditors must become cynical about management's motives. Is it the PCAOB's intention to establish a new threshold beyond healthy skepticism? Further, we fear that the cynical tone when reflected in the inspection process will result in incremental audit work not necessitated by facts and circumstances but driven by fear of second guessing in the inspection process.

While asserting that auditors need to be more skeptical in auditing accounting estimates, the Estimates Proposal presumes this will be accomplished largely by wording changes to existing standards. As noted on page 41, "The use of terms such as 'evaluate' and 'compare' instead of 'corroborate' and greater emphasis on auditors identifying the significant assumptions in accounting estimates could promote a more deliberative approach to auditing estimates, rather than a mechanical process of looking for evidence to support management's assertions." In our opinion, such subtle shadings of meaning are unlikely to have any impact in behavior. A more likely outcome of such wording changes would be for them to be used by PCAOB inspectors to challenge auditors to perform much more work. At a minimum, such wording changes add to our concern that firms will "audit up" in fear of more critical inspections.

We believe that standards setters should be objective and that standards reflect objectivity. Rather than the unnecessary negative emphasis, we urge the PCAOB to provide a more balanced discussion in any final standards. While it may be perfectly appropriate to warn auditors of the possibility of management bias in certain situations, a more objective discussion should also mention the many factors that require or at least motivate management to act responsibly. For example, consider the following guardrails.

- CEO and CFO attestations as supported by disclosure committees.
- Required company reporting on internal control over financial reporting supplemented by external auditor attestation for larger companies.
- Internal auditing.
- Audit committee oversight of significant accounting policies and estimates as well as the overall financial reporting process.
- Codes of ethics for accounting/finance and other company personnel.



- SEC reviews of periodic filings.
- Possibility of civil litigation for any accounting misstatements.

In addition, we note the guardrails in the recently issued *Mandatory Performance Framework for the Certified in Entity and Intangible Valuations Credential* that require professional skepticism as well as a consideration of management bias when valuation professionals perform valuation services for financial reporting. We expect similar requirements for valuation professionals to be included in guidance for the valuation of financial instruments.

### **More Auditing ≠ Better Estimates**

Uncertainty is inherent in estimates. By definition, estimates lack precision/accuracy. The Proposals indicate that more auditing of accounting estimates and more attention to the use of specialists in the audit process will automatically result in more reliable or accurate accounting estimates. For example, page 40 of the Estimates Proposal includes, "These improvements should enhance audit quality and, in conjunction with the clarification of the procedures the auditor should perform, give investors and audit committees greater confidence in the accuracy of financial statements (footnote omitted)." And page 41 in that Proposal notes, "In turn, assuming that firms comply with the new requirements, this should increase and make more uniform the quality of the information presented in the financial statements." Page 40 in the Specialists Proposal states "In turn as auditors are better able to identify and detect potential risks of material misstatements, this may also spur companies and their specialists over time to improve the quality of financial reporting and their work".

Contrary to these statements, more audit work will not necessarily produce high quality accounting estimates. Management has the responsibility for high quality accounting estimates. If a company has done a truly slip shod job, such as in a couple of the egregious enforcement cases cited, reasonable auditing could catch the situation. But more auditing will not help determine whether, for example, there will be slightly better technology available 25 years from now to help decommission a power plant or whether future oil & gas prices will be sufficient to cover estimated drilling and completion costs to warrant extraction of estimated oil & gas reserves. While auditing may identify certain material omissions or errors, all the auditing in the world will not automatically help make an estimate of something that will or may occur many years in the future more accurate.

As noted in the FRC letter dated July 15, 2015 on page 3, auditors can add confirmation value to the financial reporting process but they should not be expected to overcome basic deficiencies in the information to be assessed. The Specialists Proposal seems to confuse auditing and accounting as indicated by the statement on page 32 "Because investors' perceptions of the credibility of financial statements are influenced by their perception of audit quality, the auditor's appropriate use of the work of specialists may increase the credibility of the accounting estimates in the financial statements."

### **Incremental Audit Work**

It is very difficult to determine whether or how audit procedures would actually change from the wording in the Specialist Proposal. For example, on page 41 of that Proposal in describing the potential costs of the new standard, the Proposal says, "The most significant impact of the proposal on costs for auditors is expected to result from the proposed requirements to test and evaluate the work of a company's specialist. Compared with the existing requirements, the auditor will be required in all cases to evaluate the significant assumptions used





by the specialist, as currently required by other auditing standards only in certain circumstances, as well as the methods used by the specialist (footnotes omitted)." But page 42 of that Proposal notes that, "The proposal's impact would also likely vary, however, depending on whether any of the proposed requirements have already been incorporated in audit firms' audit methodologies or applied in practice by individual engagement teams." In several places in the Specialists Proposal it mentions that some, if not all, of the major firms have already implemented most of the procedures suggested in the Specialists Proposal.

Specifically, auditors in testing and evaluating the work of a company's specialist will now have to (i) test and evaluate data used by the specialist and evaluate whether the data was appropriately used by the specialist, (ii) evaluate the appropriateness of methods and reasonableness of significant assumptions used by the specialists, and (iii) evaluate the relevance and reliability of the specialist's work and its relationship to the relevant assertion. It is uncertain whether these specific procedures in the Specialists Proposal would cause firms to "fine tune" or otherwise to increase current procedures and how the PCAOB inspection process might affect how firms apply such new guidance. In addition, we are uncertain how these specific procedures will improve audit quality.

We understand that the larger audit firms indicate that they generally follow procedures similar to the Proposals but note that any new standards will cause the firms to carefully evaluate their procedures. Preparer FRC members believe that their auditors will do more work as a result of both Proposals based on concern that PCAOB inspectors may expect more work around estimates and the use of specialists. We are reminded of the original internal control auditing work that apparently went well beyond what was "intended." We urge the PCAOB to get specific feedback from audit firms of all sizes to determine the potential costs to shareholders of the Proposals.

### **Readability of Proposals**

We find the Proposals difficult to digest. Consider the following.

	<b><u>Estimates Proposal</u></b>	<b><u>Specialists Proposal</u></b>
Pages of text	57 <sup>a</sup>	61 <sup>b</sup>
Pages of appendixes	92	78
Number of footnotes <sup>c</sup>	173	141
Questions for commenters	43	43

<sup>a</sup> includes 29 pages of economic analysis

<sup>b</sup> includes 31 pages of economic analysis

<sup>c</sup> largely referring to academic studies and auditing standards

After wading through the dense documents, we do not find the economic considerations convincing and object to the tone as discussed above. The academic studies seem to be fairly selective in quoting those who agree with the direction the PCAOB proposes and include no studies that would be in conflict.

To obtain broad feedback, we suggest the PCAOB take a more reader friendly approach to its proposals. The PCAOB could have simply said something like the following.



The Association of  
Accountants and  
Financial Professionals  
in Business

- Audit deficiencies are still being found with respect to auditing estimates and the use of specialists, primarily with smaller firms and foreign firms.
- Amendments in the Estimates Proposal will improve the existing standards by placing audit guidance in a single standard and updating the standards for certain developments.
- Amendments in the Specialists Proposal segregating and clarifying requirements for evaluation of company's employed or engaged specialists from supervision requirements for auditor employed or engaged specialists will clarify existing standards.
- Proposals largely reflect current practices at larger firms and practices followed to remediate audit deficiencies.
- Let us know what you think.

We believe that a clear, more direct style will elicit more feedback.

### **In Conclusion**

We disagree with the assertion on page 2 of the Estimates Proposal that further integration with risk assessment standards could prompt greater audit attention to estimates with a greater risk of material misstatement. We believe that management and auditors pay a great deal of attention to significant estimates and we are concerned that the Estimates Proposal will result in incremental audit work across the board. Our concern would be mitigated in a final standard without a negative tone and the implication that more audit work equals better numbers and that clearly indicates that the objective is to improve the existing standards by placing audit guidance for estimates in a single standard and updating standards for certain developments.

We agree with the reorganization aspects of the Specialists Proposal but are concerned about any expansion of auditing procedures given the extensive discussions of moral hazard and management bias. The amendments are fairly reasonable as they are mainly revising the auditing literature so that specialists employed by or engaged by companies and specialists employed by or engaged by accounting firms are treated appropriately. We agree that the current auditing standards can be clarified.

The SEC and PCAOB enforcement cases cited seem to demonstrate that a few auditors will not follow auditing standards no matter how detailed they are or how clearly they are written. We are concerned that the net result of the two Proposals would be to require more work by all auditors at more cost to companies as a way of trying to address the failures of a few.

We appreciate the opportunity to express our views on the Proposals. Please let me know if you would like us to further explain these views or provide added information.

Sincerely,

Nancy J. Schroeder, CPA  
Chair, Financial Reporting Committee  
Institute of Management Accountants  
nancy@beaconfinancialconsulting.com



1401 H Street, NW, Washington, DC 20005-2148, USA  
202/326-5800 www.ici.org

August 30, 2017

Ms. Phoebe W. Brown  
Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, DC 20006-2803

Re: Proposed Auditing Standard – *Auditing Accounting Estimates, Including Fair Value Measurements*; Docket Matter No. 043

Dear Ms. Brown:

The Investment Company Institute<sup>1</sup> appreciates the opportunity to comment on the Public Company Accounting Oversight Board’s proposed auditing standard, *Auditing Accounting Estimates, Including Fair Value Measurements*.<sup>2</sup> The ICI strongly supports the Board and its mission to oversee audits of public companies, including funds, in order to protect the interests of investors and further the public interest in the preparation of informative, accurate and independent audit reports. Funds as investors—and investors in funds—rely upon audits to provide independent assurance that financial statements are fairly stated in conformity with generally accepted accounting principles.

The Proposal would replace three auditing standards on accounting estimates and fair value measurements with a single standard. The Proposal includes an appendix that addresses auditing the fair value of financial instruments, including the use of information from pricing services. The Proposal would also amend AS 1105, *Audit Evidence*, by adding an appendix that describes the auditor’s responsibilities for obtaining audit evidence where the fair value measurement of an investment is based on the investee’s financial condition or operating results (*e.g.*, investments in private placements).

---

<sup>1</sup> The Investment Company Institute (ICI) is the leading association representing regulated funds globally, including mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers. ICI’s members manage total assets of US\$20.0 trillion in the United States, serving more than 95 million US shareholders, and US\$6.0 trillion in assets in other jurisdictions. ICI carries out its international work through ICI Global, with offices in London, Hong Kong, and Washington, DC.

<sup>2</sup> Proposed Auditing Standard, *Auditing Accounting Estimates, Including Fair Value Measurements and proposed Amendments to PCAOB Auditing Standards*, PCAOB Release No. 2017-002 (June 1, 2017) (the “Proposal”).

Ms. Phoebe W. Brown, Secretary  
August 30, 2017  
Page 2

We commend the Board's approach to developing the Proposal. We believe the Pricing Sources Task Force, in which representatives from several mutual fund advisers participated, and the 2014 Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*, demonstrate a thoughtful and deliberative approach to standard setting. We have concerns, however, with the certain aspects of the proposed changes to AS 1105, *Audit Evidence*, as they relate to investment companies. We elaborate on these concerns below.

### *SEC Registered Investment Companies*

Fund investments in debt and equity securities are required to be measured at fair value.<sup>3</sup> Funds often rely on pricing services to obtain fair values for their investment securities for both daily net asset value calculation and financial reporting purposes. In certain circumstances funds may estimate the fair value of an investment based on the investee's financial condition or operating results. Accordingly, the Proposal is of considerable interest to funds.

Auditors to SEC-registered investment companies must independently verify 100 percent of the fair value measurements used by the fund at the balance sheet date.<sup>4</sup> Auditors typically obtain fair value measurements for the fund's securities from pricing services different than the pricing service used by the fund, or develop their own independent estimate. Such fair value measurements represent independent estimates and are used by the auditor to corroborate the fair value measurement used by the fund.

### *AS 1105, Audit Evidence*

Proposed Appendix A to AS 1105 would apply to situations in which the valuation of an investment selected for audit testing is based on the investee's financial condition or operating results. This could include, for example, investments in private placements where the fair value measurement is based on a multiple of revenue or earnings derived from the investee's financial statements. We offer the following comments on Appendix A.

1. Paragraph A2d would require the auditor to determine whether the investee's financial statements were audited under PCAOB standards, and whether the auditor's report expressed an unqualified opinion. We believe it is not uncommon for audits of private companies to be performed under AICPA standards and that audits performed under AICPA standards provide a level of assurance that is substantially similar to those performed under PCAOB standards. We therefore recommend that the Appendix acknowledge that audits of private company financial statements may be performed under AICPA standards and that such audits do not increase the risk of material misstatement or necessitate additional procedures to be performed by the investor's auditor.

---

<sup>3</sup> See FASB ASC 946-320-35-1.

<sup>4</sup> See SEC Codification of Financial Reporting Policies Section 404.03, *Accounting, Valuation and Disclosure of Investment Securities*, Accounting Series Release No 118 (December 23, 1970).

Ms. Phoebe W. Brown, Secretary  
August 30, 2017  
Page 3

2. Paragraph A3 lists procedures the auditor should perform where the valuation of an investment selected for audit testing is based on the investee's financial condition or operating results. Paragraph A3d indicates that if the valuation of the investment reflects factors other than the financial condition or operating results reported in the investee's financial statements, the auditor should perform procedures with respect to those factors. Factors may include, for example, multiples applied to the investee's revenues or earnings. The Proposal, however, does not describe the procedures to be performed with respect to the factors or multiples. We recommend that the Appendix describe the types of procedures the Board would expect the auditor to perform. Such procedures could include, for example, ensuring that peer companies used to develop multiples applied to the investee's revenues or earnings are appropriate comparisons, and that revenues or earnings for those peer companies are calculated in a similar fashion (*e.g.*, "adjusted earnings" versus earnings calculated pursuant to generally accepted accounting principles).
3. If the investee's audited financial statements are significant to the valuation of the investment, paragraph A4 would require the auditor to obtain and evaluate information about the professional reputation and standing of the investee's auditor, and obtain information about the procedures the investee's auditor performed and the related results, or review the audit documentation of the investee's auditor.

We are concerned that the proposed requirement to obtain information about the procedures the investee's auditor performed and the related results, or to alternatively review the investee auditor's audit documentation, may not be practical. Where the investor is a fund that invests in many different private placement securities, we believe the proposed requirement would add significantly to the work performed by the investor fund's auditor. We also question whether the investor fund's auditor would have access to the investee auditor's audit documentation as contemplated by the Proposal.

Instead, we recommend that the final standard enable auditors to apply a risk-based approach to determine whether they should obtain information about the procedures the investee's auditor performed. Under such an approach, the auditor could consider the size of the investment in relation to the risk of material misstatement of the investor's financial statements, and determine that obtaining information about the procedures performed by the investee's auditor is unnecessary. In lieu of obtaining that information, the auditor could instead examine management's process for determining that the information obtained from the investee's financial statements is reliable and can be used in its valuation model.

4. The note to paragraph A4 addresses investment company investments in other funds. The note indicates that, unless the investor fund's auditor has doubt about the investee fund's auditor, the investor fund's auditor may test the investor fund's procedures for understanding and assessing the investee fund's valuation process, rather than obtaining information about the audit of the investee fund or reviewing audit documentation.

We believe the approach described in the note is consistent with current practice relating

Ms. Phoebe W. Brown, Secretary  
August 30, 2017  
Page 4

to audits of certain investment companies. We understand funds investing in unaffiliated funds typically obtain information about the investee fund's valuation process at the time of initial investment in an effort to understand the investee fund's valuation process and assess whether it complies with FASB ASC 946.

We note that the practical expedient at FASB ASC 820-10-35-59 enables a fund investing in a fund that does not have a readily determinable fair value<sup>5</sup> (e.g., a private fund) to value its investment at net asset value per share, provided the net asset value per share of the investee fund is calculated consistent with the measurement principles in FASB ASC 946.

We support the approach described in the note to paragraph A4 enabling the investor fund's auditor to test the investor fund's procedures for understanding and assessing the investee fund's valuation process. We recommend, however, that the note be clarified to indicate that it does not apply to fund investments in funds that have a readily determinable fair value. That is, where the investee fund is a mutual fund and the mutual fund's net asset value per share is published and is the basis for current transactions, then the practical expedient would not apply and the investee fund's financial statements would not be significant to the investor fund's valuation of its investment.

*AS 2501, Auditing Accounting Estimates, Including Fair Value Measurements*

The Proposal includes, as an appendix to AS 2501, requirements for determining whether pricing information obtained from third-party pricing sources, including pricing services and broker dealers, provides sufficient appropriate audit evidence. Paragraph A4c of the appendix indicates that the reliability of information obtained from a pricing service is dependent on, among other things, whether the pricing service has a relationship with company management whereby management is able to directly or indirectly control or significantly influence the pricing service.

An investment company that obtains prices from a pricing service may "challenge" a price provided by the service in instances when the fund believes that price does not reflect the current market. For example, the fund may provide information about a recent observable transaction in the particular security to the pricing service and request that the service update its price to reflect that information. We recommend that any final standard clarify that a price challenge by management based on substantive information that causes the pricing service to change its price is not deemed significant influence.

---

<sup>5</sup> According to the FASB master glossary, the fair value of an equity security that is an investment in a mutual fund or in a structure similar to a mutual fund (that is, a limited partnership or a venture capital entity) is readily determinable if the fair value per share (unit) is determined and published and is the basis for current transactions.

Ms. Phoebe W. Brown, Secretary

August 30, 2017

Page 5

If you have any questions on our comments or require additional information, please contact the undersigned at 202-326-5851 or [smith@ici.org](mailto:smith@ici.org).

Sincerely,

A handwritten signature in black ink that reads "Gregory M. Smith". The signature is written in a cursive, flowing style.

Senior Director –  
Fund Accounting & Compliance



**KPMG LLP**  
345 Park Avenue  
New York, N.Y. 10154-0102

Telephone	+1 212 758 9700
Fax	+1 212 758 9819
Internet	www.us.kpmg.com

August 30, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, D.C. 20006-2803

**PCAOB Rulemaking Docket Matter No. 043**  
**Proposed Auditing Standard - *Auditing Accounting Estimates, Including Fair Value Measurements* and Proposed Amendments to PCAOB Auditing Standards**

Dear Madam Secretary:

KPMG LLP is pleased to submit comments on the Public Company Accounting Oversight Board's (the PCAOB or the Board) Proposed Auditing Standard - *Auditing Accounting Estimates, Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards* (the Proposal or the Proposed Standard). We welcome the opportunity to work with the Board, PCAOB staff (the Staff), and other stakeholders to improve audit quality through enhanced auditing standards.

We agree that the Proposed Standard will result in the PCAOB auditing standards being strengthened in the following respects:

- I. We are supportive of the single standard approach for auditing accounting estimates, including fair value measurements, that would supersede certain existing auditing standards referred to in the Proposal, including AS 2501, *Auditing Accounting Estimates* (AS 2501), AS 2502, *Auditing Fair Value Measurements and Disclosures* (AS 2502), and AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AS 2503, and collectively the Existing Standards), while retaining key requirements in a comprehensive standard. We believe that the process management uses to prepare accounting estimates, including fair value measurements, has common attributes that enable the PCAOB to meaningfully address auditing of estimates under a single standard. We believe that the Proposal as written is scalable to the applicable financial reporting framework, including both the revenue recognition and impairment of financial instruments accounting standards.



Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 2

- II. We believe that there is great benefit when the risk assessment standards are integrated into other auditing standards, and are supportive of the proposed amendments to other PCAOB auditing standards as a result of this Proposal.
- III. We agree that improvements in the clarity and specificity of auditor requirements are presented in the Proposal. For certain areas, like testing the mathematical accuracy of the company's estimate and testing data used, we have included specific comments regarding our views on additional opportunities for further improvement.
- IV. The Proposal demonstrates the PCAOB's understanding of, and takes into account the prevalent use of, pricing services by companies and auditors for the fair value of financial instruments, and how these services have evolved which affects the risk of material misstatement. Because we believe there is great benefit in the centralization of accumulating and evaluating audit evidence (e.g., investment pricing), we believe the Proposed Standard would be enhanced by providing guidance as to how individual engagement teams consider such evidence.
- V. With regard to how auditors should address management bias, while reinforcing the need for professional skepticism, we believe that without a uniform judgment framework against which auditor skepticism can be evaluated, the Board's intent may be difficult to achieve. For example, the third Note to paragraph .05 of the Proposed Standard states that responses to the risks of material misstatement involve application of professional skepticism in gathering and evaluating audit evidence. Additional guidance as to what evidence is specifically expected beyond determining that it is persuasive to the identified risks and meets the criteria for relevance and reliability of audit evidence would be helpful.

We also acknowledge the Board's consideration and alignment with the existing ISA 540, *Auditing Accounting Estimates*. Reasonable convergence among auditing standards issued by other standard setters helps to enhance audit quality and comparability across the globe.

For the Board's consideration, we offer the comments below for further enhancement and clarification to the Proposal. When our comment is responsive to a specific question in the Proposal, we have indicated as such by (Q#) at the beginning of the paragraph.

### **Comments on the Proposed Standard**

#### *Objective*

(Q17) As stated in the Proposal, accounting estimates by their nature have subjective assumptions and measurement uncertainty making them susceptible to management bias. We

Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 3

are concerned that the objective in paragraph .03 and the conclusion expected by paragraph .09 are not operational because the requirement for the auditor to obtain sufficient appropriate audit evidence to determine that accounting estimates are “free from bias” goes beyond providing reasonable assurance. While the proposed wording is similar to AS 2810.24 in its use of “free of material misstatement,” we recommend that the Board consider language such as that which is included in AS 2810.27 and AS 2501.04 to acknowledge that bias may exist, and to provide guidance on the auditor’s responsibility and steps to evaluate the extent of bias in determining whether a material misstatement exists.

*Responding to the Risks of Material Misstatement*

**(Q19)** We appreciate the Board’s retention of the three substantive approaches to testing and its decision to not require auditors to develop an independent expectation or limit the auditor’s selection of an approach when responding to the risks of material misstatement. While the Proposed Standard provides greater clarity as to the required audit response for each testing approach, it is unclear as to how the auditor would apply a combination of approaches. Paragraphs .07a-c of the Proposed Standard refer to more detailed requirement paragraphs for each testing approach which implies that the requirements in the respective referenced paragraphs would be applicable. Without additional guidance, applying a combination of approaches may result in auditors performing all requirements in the Proposed Standard, not just those necessary to obtain sufficient appropriate audit evidence.

We believe that auditors often combine testing management’s process with independently developing components of an estimate or independently testing certain assumptions, and therefore the approaches should not be mutually exclusive. Instead, when applying a combined approach, the focus should be on determining whether sufficient appropriate audit evidence has been obtained in response to the assessed risk, and not on compliance with a planned substantive testing approach. For this reason, the Board should clarify whether documentation of a specific testing approach, including any changes that are not related to a change in risk assessment, is expected.

When events or transactions relevant to estimates occur after the measurement date, the estimation uncertainty may be effectively eliminated, which affects risk assessment and the audit response related to valuation. We suggest the Board clarify the extent of additional procedures required, if any, when such events are considered and tested.

The Note to paragraph .07 appears to be from AS 2501, edited to remove reference to audit requirements in integrated audits. Because understanding management’s process is a required element of risk assessment, we are concerned that the Proposal language may lead auditors to test management’s process substantively, regardless of whether another approach will provide the same or more persuasive audit evidence. We also suggest more guidance be provided about how an auditor’s understanding of management’s process affects the auditor’s planned response to assessed risk in accordance with AS 2301, *The Auditor’s Responses to the Risks of Material Misstatement* (AS 2301). For example, the use of auditor data analytic

Office of the Secretary  
Public Company Accounting Oversight Board  
August 30, 2017  
Page 4

techniques applied to large amounts of data (e.g., pricing data for investment securities) may make an independent estimate more effective, regardless of the sufficiency of management's process.

In addition, the inclusion of the phrase "and the results of tests of relevant controls" to that Note may be read to mean that relevant controls are expected to be tested in all audits. To better link to the requirements of AS 2301, we suggest adding "when applicable" after "controls" or a footnote reference to relevant requirements in AS 2301.

#### *Use of Data Analytic Techniques*

**(Q4)** The Proposed Standard is silent as to the use of data analytic techniques, which when considered with the specificity of the requirements of each testing approach, might suggest to auditors that substantive tests of detail are most appropriate, regardless of whether a significant or fraud risk exists. We believe that appropriately designed data analytic techniques may provide sufficient appropriate audit evidence, including for estimates, provided the completeness and accuracy of the data is tested. Consider the following examples of data analytic techniques that may be used to obtain sufficient appropriate audit evidence for relevant assertions related to estimates:

- Use of a data analytic technique to review plan data in a defined benefit plan frozen to new entrants in a stable interest rate environment. We believe it would be appropriate to consider evidence obtained in prior audits regarding the census data, and the development of key assumptions, and to use data analytics to extend the audit conclusion without re-performing all the audit procedures required to test management's original process. Likely, management's process is less robust in this fact pattern than would be expected if there were, say, a settlement of the obligation.
- Use of a data analytic technique to identify circumstances where management's estimate of the fair value of financial instruments, which is from a source determined to be relevant and reliable, is outside of an audit range developed from other pricing sources.
- Use of a data analytic technique to evaluate the reliability of prices from multiple sources.
- Use of a data analytic technique to compare data trends in estimates that rely on historical data, for example, loans acquired under deteriorated credit conditions accounted for under ASC 310-30.

#### *Testing Approach for Fair Value of Derivatives and Securities*

In practice, we believe auditors most often obtain audit evidence for estimates by testing management's process and that developing an independent expectation of an estimate may generally be necessary when sufficient appropriate audit evidence cannot be obtained from

Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 5

testing management's process alone. A notable common exception to this is when testing the value of derivatives and securities.

In applying AS 2503, some auditors independently obtain prices from sources that are different than management; others obtain prices irrespective of management's source. With regard to testing fair value:

- We recommend that the Board bring into the Proposed Standard the content from footnote 47 of Appendix 3, which explains that other requirements may restrict the auditor from using the same pricing source as management. Specifically, *Codification of Financial Reporting Policies Section 404.03, Accounting, Valuation and Disclosure of Investment Securities*, imposes a requirement on auditors of registered investment companies to examine the fund's valuation policies and procedures for compliance with generally accepted accounting policies and to verify all quotations used by the company at the balance sheet date and, in the case of securities carried at fair value as determined by the board of directors in good faith, "(to) review all information considered by the board or by analysts reporting to it." Discussion between the PCAOB and the SEC and further clarification about sufficient and appropriate audit procedures for evaluated prices, which are among the securities carried at fair value as determined by the board of directors in good faith, would be helpful to drive consistent application, in particular when the board of directors of a registered investment company chooses to use a pricing service.
- Page A3-34 to the Proposal makes clear the auditor (excluding auditors of registered investment companies, due to SEC requirements previously discussed) may use management's source, provided there is appropriate evidence as to relevance and reliability of the source. We think it would be helpful to clarify this point within the Proposed Standard because, for many auditors, it will be a change in practice.

#### *Testing the Company's Process Used to Develop the Accounting Estimate*

Paragraph .09 of the Proposed Standard states that "Testing the company's process involves performing procedures to test and evaluate the methods, data, and significant assumptions..." We believe that this description of what testing the company's process entails is not clear because "test" is only used again in paragraph .12 with regard to testing data.

We believe the Proposed Standard would further enhance audit quality if there was greater clarity as to what is meant by "data" and "assumptions," as the requirements to be applied differ for the two. Assumptions are often judgmental and subject to management's bias. We consider data to be the aggregation of factual transactions (e.g., historic charge-offs or census data) or fact (e.g., benchmark interest rates) that can be objectively verified.

With regard to paragraph .20 of the Proposed Standard, we suggest providing additional guidance or criteria against which to evaluate whether the company has used third-party

Office of the Secretary  
Public Company Accounting Oversight Board  
August 30, 2017  
Page 6

pricing information “appropriately” when assessing whether the information provides sufficient appropriate audit evidence.

*Evaluating the Company’s Method Used to Develop an Accounting Estimate*

**(Q20 and Q41)** While we acknowledge that paragraph .10b is consistent with paragraph .15 of AS 2502, the requirement to evaluate whether the methods used are “appropriate for the nature of the related account or disclosure and the business, industry, and environment in which the company operates” may be somewhat redundant, as these considerations would be included in the assessment that the estimate was computed in accordance with the requirements of the financial reporting framework. Moreover, because the company’s selection of accounting principles appropriate for the business, industry, and environment is addressed in AS 2110, *Identifying and Assessing Risks of Material Misstatement* (AS 2110), we believe this language may no longer be needed. We recommend that paragraph .10 be simplified as follows:

The auditor should evaluate whether the methods used by the company<sup>9</sup> to develop the accounting estimates are in conformity with the requirements of the applicable financial reporting framework.

Note: Evaluating whether the methods are in conformity with the requirements of the applicable financial reporting framework includes the selection from alternative methods that are appropriate for the entity, and evaluating whether the data and significant assumptions are appropriately applied.

**(Q20)** *Testing mathematical accuracy:* When evaluating the company’s methods, we suggest that the Proposed Standard retain the requirement from AS 2501.11i to “test the calculations used by management to translate the assumptions and key factors into the accounting estimate.” We believe obtaining evidence of the mathematical accuracy of the calculations is an essential element of concluding on the reasonableness of the estimate.

**(Q21 and Q22)** *Testing Data Used*

*Completeness and accuracy of data used:* We believe the Proposed Standard could benefit from a performance requirement for the auditor to evaluate whether all of the relevant data used in developing the estimate is accurate and complete, similar to the existing requirement with respect to fair value measurements included in the second sentence of AS 2502.39. Paragraphs .12 and .13 of the Proposed Standard refer to existing requirements in AS 1105.10 (Using Information Produced by the Company) and AS 1105.07-.09 (Relevance and Reliability), respectively, which are the sufficiency and appropriateness considerations applicable to all of the evidence obtained by the auditor from audit procedures or other sources. However, we do not believe that the considerations included in these paragraphs of

Office of the Secretary  
Public Company Accounting Oversight Board  
August 30, 2017  
Page 7

AS 1105, *Audit Evidence* (AS 1105), are themselves requirements to perform audit procedures that address risks of material misstatement as required by AS 2301. Therefore, we believe that a clear performance requirement such as “The auditor should evaluate whether the data used in the estimate is accurate and complete” should be included in place of paragraphs .12 and .13 of the Proposed Standard in order to articulate the auditor’s AS 2301 response that is expected with respect to data used in developing the estimate.

To further enhance paragraph .14 of the Proposed Standard for the auditor’s evaluation of management’s use of the data in the measurement, we also recommend that the guidance on evaluating management’s use of the data from pages A3-12 and A3-13 be included in the Proposed Standard.

*Testing relevant data used:* Paragraph .15 of the Proposed Standard requires the auditor to identify all significant assumptions, however there is not a similar requirement to identify all significant data elements in an estimate. Both the Existing Standards and the Proposed Standard are silent as to whether the data to be tested refers to all the data used or may be limited to the significant or relevant “inputs.” We recommend the Board consider clarifying the extent of data necessary to test.

**(Q23) Identification and Evaluation of Significant Assumptions**

We are concerned that the definition of significant assumptions in paragraph .15 may be too broad because it refers to assumptions that are “important” to the recognition or measurement of accounting estimates. The factors to consider in paragraph .15a-e do provide some context for what is considered “important,” but the factors could possibly be further enhanced by including the concept in AS 2502.33 regarding those that could materially affect the estimate.

*Requirements of applicable accounting framework:* Page A3-21 of the Proposal indicates that by taking into account the requirements of the financial reporting framework, the auditor might identify additional considerations to the estimate that the company did not take into account. Page A3-15 indicates that the Proposed Standard “does not require the auditor to identify assumptions beyond those used by management (including those implicit in a particular method or estimate).” These two statements appear to be contradictory, and also not consistent with paragraph .15 of the Proposed Standard. While this wording is not used in the Proposed Standard, the Board may wish to clarify its expectations of auditors to identify when management has not considered the need for a specific assumption to correctly apply the applicable accounting framework (as opposed to searching out all reasonable alternatives to assumptions selected).

In addition, the omission of such requirement to identify assumptions beyond what management identified may be inconsistent with the requirements of other PCAOB auditing standards. For example, AS 2110 notes that the auditor should evaluate whether the

Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 8

company's selection and application of accounting principles are appropriate for its business and consistent with the applicable financial reporting framework, etc. That standard also notes that the auditor should develop an expectation about the disclosures that are necessary, to verify that the company's disclosures are complete. In addition, AS 2110.38 notes that in performing walkthroughs and asking probing questions, the auditor will gain an understanding of when a control is missing or not designed effectively. In applying this control guidance to the estimate process, we believe an auditor is responsible for understanding the risk points in the estimate (and the underlying assumptions and data) and therefore would be responsible for evaluating the significance of assumptions and data not identified by management.

The first Note to paragraph .16 of the Proposed Standard requires the auditor to have a reasonable basis for the expectation when assessing reasonableness of an assumption by developing an expectation of management's significant assumptions. However, the Note would benefit from a description of how to evaluate any variances between management's assumption and the auditor's expectation.

*Developing an Independent Expectation of the Estimate*

There are inconsistencies in practice in the manner in which management and auditors may interpret or calculate a potential misstatement in an estimate. Auditors often develop point estimates and determine an appropriate range around such point estimate, or develop an audit range against which to compare to management's point estimate. The range cannot be more precise than the estimate itself and, as stated in paragraph .25 of the Proposed Standard, the range should be appropriate for identifying a misstatement.

**(Q29)** We believe additional guidance regarding establishing an appropriate audit range would be helpful, specifically with regard to the Board's expectation around how the auditor should support its determined range with sufficient appropriate audit evidence. In some instances, a range may be supported by empirical data, but in other cases it may be determined based on auditor judgment.

We also believe additional guidance on how to evaluate management's point estimate against the determined auditor's range for purposes of evaluating whether a misstatement exists would be beneficial. For example, if management's point estimate is within the auditor's reasonable range, a difference need not be evaluated as a misstatement. Paragraph .25 of the Proposed Standard indicates that the range should be supported, but in the instance when a point estimate is determined in addition to a tolerable range around that point estimate, it is unclear whether or how this guidance still applies. Similarly, paragraph .13 of AS 2810, *Evaluating Audit Results*, is unclear on how to determine the amount of the misstatement specific to point estimates with a tolerable range. The complexity of an estimate and the amount of objective inputs and empirical data is also a consideration (i.e., contrasting

Office of the Secretary  
Public Company Accounting Oversight Board  
August 30, 2017  
Page 9

investment securities with business valuations). In addition, we encourage the Board to include examples of how an auditor might evaluate management's point estimate for bias when the auditor is using a range.

### **Comments on Appendix A – *Special Topics***

**(Q31)** We commend the PCAOB for recognizing that pricing information generated by pricing services used in making accounting estimates generally tends to have different characteristics than data or assumptions used for other estimates, and that audit evidence from these sources should be evaluated against the same criteria when determining relevance and reliability regardless of whether it is accumulated by testing management's process or developing an independent estimate. Further, we also agree that pricing information should be evaluated differently when obtained from brokers or dealers. We encourage the Board to consider including the three characteristics identified starting on page A3-35 of the Proposal, as an expansion to the concept covered by paragraph .A3(a). With regard to the requirements when auditing the fair value of financial instruments included in Appendix A – *Special Topics* of the Proposed Standard, we have the following comments:

#### *Identifying and Assessing Risks of Material Misstatement Related to the Fair Value of Financial Instruments*

**(Q32 and Q41)** Both paragraphs .20 and .A2 of the Proposed Standard refer to AS 2601, *Consideration of an Entity's Use of a Service Organization*, if the third party is part of the company's information system over financial reporting. We believe that the auditor's understanding of the company's use of service organizations and specialists should be considered when assessing risks of material misstatement related to the fair value of financial instruments. However, we suggest that further consideration as to whether merely receiving prices from third-party pricing sources in and of itself amounts to using a service organization.

If auditors consider only the criteria in AS 2601.03, it is likely that third-party pricing services will often be considered service organizations. We believe that criteria is insufficient without the content in AS 2503.11 through .14 which outlines relevant considerations specific to financial instruments. Notwithstanding the applicability of the definition of a service organization to a third-party pricing service, the relatively low risk posed by the receipt of such information does not warrant, in our view, subjecting the arrangement to the requirements imposed on the auditor under the service organization literature. We recommend that the footnotes in the Proposed Standard that reference to AS 2601 be deleted.

Our experience causes us to believe that evaluating controls at third-party pricing services will be challenging for both management and auditors. The pricing services are reasonably transparent with their processes and will walk through pricing for a sample of securities.



Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 10

However, the availability, form, and content of service organization internal control reports from pricing services is inconsistent.

Additionally, the degree to which pricing services provide transparency into the inputs for any specific security on a routine basis varies, which could present operational difficulties in performing the procedures outlined in the Proposed Standard. We recommend that the Board seek additional input from the pricing services about the additional time and costs associated with developing the documentation that auditors would expect to request from management, or obtain directly from the pricing services, in order to comply with the Proposed Standard.

We also recommend that the Board add wording to the proposed amendment to AS 2110.28, using language similar to the existing note on evaluation of risk and controls within the information system, to clarify that the service organization is part of the evaluation, not a separate consideration.

#### *Additional Risk Assessment Consideration*

AS 2503 contains additional risk assessment considerations for financial instruments and derivatives such as the complexity of the instrument, external factors that impact the derivative, and the company's experience with derivatives. Because the risks of material misstatement may vary in derivative products, we suggest retaining this AS 2503 content in an appendix to the Proposed Standard.

In addition, paragraphs .23 and .24 of AS 2502 may also help the auditor design substantive procedures and would also be useful to retain.

#### **(Q34)** *Using Pricing Information From Pricing Services*

Paragraph .A3 could be enhanced by clarifying the meaning of "uniform pricing information." From our understanding, certain pricing services prepare pricing information upon client request, but follow uniform procedures that cause the preparer of the specific information to be unaware of the identity of the user and there is often no bias of the user introduced into the process. In those circumstances, footnote 3 would seem to be inapplicable as the pricing service is likely providing a more specialized service than acting as specialist as contemplated by AS 1105.

We agree conceptually with the three factors in paragraph .A4 that affect the reliability of pricing information provided by pricing services, but believe further clarification would be helpful:

- The requirement in paragraph .A4a use "types of financial instruments" which seems to apply broadly to the asset class coverage of a pricing service (e.g., municipal bonds) as compared to the "financial instrument being tested" in paragraph .A4b (e.g., a specific municipal bond sampled from a larger portfolio).

Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 11

We are not clear as to whether paragraph .A4b requires the evaluation of whether the methodology used for municipal bonds would result in an estimate in conformity with the applicable financial reporting framework or how such methodology was applied to the specific municipal bond in conformity with the applicable financial reporting framework. Based on our experience, the pricing services establish methodologies for the asset classes they price, and these methodologies consider multiple observable data points when producing an evaluated price(s). If the intent of paragraph .A4b is for the auditor to evaluate the methodology applied to each item tested, we believe it may create an undue cost and burden on the pricing service, and then on the companies and auditors, to provide the specific method used for any one security at any point in time. Further, we are unclear as to how the statement on page A3-34 that the Proposed Standard does not require audit procedures to be applied to each individual financial instrument, similar to the Existing Standards, is to be considered in this context.

- We believe the requirement about the experience and expertise of pricing services could benefit from additional specificity as to what is expected, thereby preventing inconsistencies in how auditors evaluate this criteria. The PCAOB may wish to provide more guidance on the frequency of evaluating the experience, expertise, and methodology of a pricing service, including when an additional evaluation may be necessary. For example, what would be the expectation of the auditor, as to the nature, timing, and extent of procedures when there are significant changes within an organization, such as a merger or redistribution agreement between pricing services?
- While we acknowledge that the three factors outlined in paragraph .A5 are relevant to financial instruments because they are factors in evaluating the application of the financial reporting framework and fair value hierarchy, we believe data analysis of multiple pricing services could obviate the need to consider this level of detail at the individual financial instrument level across many asset classes. Data provided today by many pricing services does not readily distinguish all of the attributes in paragraph .A5 at the financial instrument level.
- The determination of whether and how similar financial instruments relate to the fair value estimate provided by pricing services is subjective and not transparent at the financial instrument level for all prices from vendors without incremental cost and effort. We believe paragraph .A6 of the Proposed Standard would be

Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 12

sufficiently addressed if an auditor were to centrally evaluate the process through which a pricing vendor identifies and uses data about similar financial instruments when arriving at an evaluated price without needing to know the exact process for each specific financial instrument.

*Sufficient Appropriate Audit Evidence – Single or Multiple*

Observable market data such as exchange activity is contrasted with what the third-party pricing services often refer to as “evaluated prices,” which are estimates that generally use observable data as inputs. Only 1-2% of bonds trade daily, and most of those trades are Treasury or Agency bonds. The pricing services have designed systems and processes to develop and frequently refresh their estimates to be based principally on observable inputs which include, but are not limited to, recent trades and matrix pricing. In more limited circumstances, unobservable inputs are considered, but are typically not significant to the evaluated price. For this reason, we think that paragraph .A6 will be applicable in the majority of circumstances, and paragraph .A7 will be applicable less frequently. For this reason, we believe these paragraphs could provide greater specificity as to the nature and extent of additional audit procedures necessary when relevance is affected by paragraphs .A5b or .A5c. Pages A3-35 to A3-39 of the Proposal provide a good deal of insight on the Board’s expectations. In order to increase consistent application of the Proposed Standard, we encourage the Board to bring more of these concepts into the Proposed Standard. Page A3-37 of the Proposal acknowledges that there may be circumstances where the auditor is unable to perform the procedures required in Appendix A of the Proposed Standard, and would need to perform alternative procedures (e.g., engaging a specialist to assist the auditor in developing an independent estimate). We recommend the Board consider including this guidance as part of paragraphs .A5-.A7.

**(Q36)** We agree with the concept that when multiple pricing sources are used, less information is needed about the particular methods and inputs used by the individual pricing services. Each pricing service views their models as proprietary intellectual property and it may not be feasible to evaluate the methods and assumptions in the manner envisioned by the Proposed Standard.

However, we believe that additional guidance could be provided about what constitutes “less information” and how to use the information from multiple sources. Page A3-37 indicates obtaining pricing information from a different pricing source would be an additional procedure. However, obtaining another price does not definitively resolve which estimate is the best estimate. When evaluating multiple pricing sources, we believe an average of a reasonable number of available prices, excluding prices that statistical or other objective evidence indicate are outliers, is the method that the Proposed Standard should require. In

Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 13

addition, procedures such as those outlined in paragraph .A4 should be performed for at least one source to serve as the basis for which relevance of other prices may be established.

Given the widespread availability of market pricing data on public websites such as Google and Yahoo, we believe consistent execution across the profession would be enhanced if the Proposed Standard clarified whether or how such sources of pricing may be used by an auditor. These websites would generally not be characterized as pricing services and do not offer a level of transparency about their data transmissions that is contemplated by the Proposed Standard.

Page A3-39 of the Proposal indicates that a representative price would not necessarily be closest to the company's price but rather based on available information about the pricing services and the instrument, and would likely reflect market price. We think this guidance should be included in the Proposed Standard.

#### *Trade Volume Information*

**(Q34)** Transaction information (with the exception of company-specific transactions) is generally unavailable to most third parties, including management and auditors. Because of the lack of trade volume for many financial instruments, pricing service processes are designed to maximize observable data, which includes recent trades when available, and to use other observable data when trades are not available. In addition, there is not one source where all trade data is maintained. For example, brokers or dealers who are FINRA member firms have an obligation to report over the counter transactions in corporate bonds and securitized instruments to TRACE<sup>1</sup> under an SEC-approved set of rules. Although TRACE is a significant source of trade data, not all data collected through this process are redistributed to the marketplace.

When multiple pricing services are used, the auditor may use quantitative, statistical, historical, and current comparisons to identify evaluated prices that do not appear to align with the conditions in paragraph .A8b-d, making consideration of paragraph .A8a unnecessary.

We suggest that paragraph .A8 be revised to combine the concept in .A8a with .A8d as follows:

d. The pricing information for the financial instrument is generally based on inputs that are observable, including recent trades of the financial instrument or of financial instruments substantially similar to the financial instrument being tested.

We encourage the PCAOB to obtain feedback from the pricing services on the level of information they are able and/or willing to provide. Although pricing services may willingly

---

<sup>1</sup> See <http://www.finra.org/industry/trace>

Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 14

change their processes and data to adapt to new requirements, the incremental benefit may not contribute to audit quality in a way that correlates appropriately with the cost. We suggest that the Board endeavor to specify objectively determinable methods of valuation so that a pricing service could indicate whether the prices provided were determined in accordance with a particular method, which in turn would allow management and auditors to align their testing effort against those principles. Doing so would also promote uniform application in the development by pricing services of evaluated pricing in line with methods that are transparently aligned with the Board's expectation.

*Centralized Evaluation of Pricing Information*

(Q35) Page A3-38 indicates that the Proposed Standard would continue to allow centralized groups to assist in performing procedures related to testing the fair value of financial instruments. Footnote 50 of the Proposal describes certain activities of such centralized groups that would be subject to the supervision requirements of AS 1201, *Supervision of the Audit Engagement* (AS 1201), including evaluating the specific methods and assumptions related to particular instruments, identifying and assessing risks of material misstatement, and evaluating differences between a company's prices and a pricing service's price.

We appreciate the Board's acknowledgment that the centralized evaluation of the pricing information is efficient and effective in the consistent evaluation of pricing services' methodologies, controls, and pricing information in response to paragraph .A4 at the asset class level. We believe that uniform application of these concepts could be enhanced if additional guidance or more precise requirements about the extent of what may be executed by a centralized group and provided to individual engagement teams, or more specifically, an engagement partner, were provided in either AS 1201 or the Proposed Standard. We believe that many of the risks of material misstatement associated with financial instruments, particularly when measured at fair value using observable inputs, reside at the specific instrument level and are agnostic to the entity holding the financial instrument. We recommend that the Proposed Standard permit the audit evidence accumulated by performing centralized audit procedures to be considered and used by individual engagement teams, except if there is an entity-specific risk not directly associated with the instrument. For example:

- Centralized conclusions on the relevance and reliability of specific pricing sources and specific securities may be used by individual engagement teams without further evaluation.
- Engagement teams may use centralized risk assessment at the asset class and security level supplemented by whether any entity-specific risks exist, such as management override of pricing information.

Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 15

- Centralized data analytic tools may be used to test company portfolios against pricing information, with conclusions on measurement (the “price”) provided to engagement teams.

*Using Pricing Information From a Broker or Dealer*

(Q37) We believe paragraph .A9 could be more explicit with respect to evaluating the relevance and reliability of audit evidence when a company’s fair value measurement is based on a “broker quote.” Specifically, we believe the discussion on page A3-40 regarding how to think about the qualifiers would be beneficial to include in the Proposed Standard. That guidance states that “generally” broker quotes provide more relevant information when certain criteria are met and implies that the criteria are necessary to obtain sufficient appropriate audit evidence over the broker quote.

We believe this requirement will result in a significant change in practice because the five criteria are bound with “and,” and the relevance of this criteria is further reinforced by the Note. While we agree in concept about the need to enhance how broker or dealer quotes are evaluated as audit evidence, we suggest the Board consider whether there will likely be lower risk circumstances for which a broker quote may be sufficient appropriate audit evidence without meeting all criteria. For example, an executable broker bid may be viewed as relevant reliable audit evidence even if not from a market maker (in practice, there is no standard definition of a market maker). Without additional guidance, we are concerned that it will be difficult for auditors to consistently and objectively determine when additional procedures should be performed before considering the evidence reliable.

*Unobservable Inputs*

The guidance in the Proposed Standard relating to unobservable inputs is limited as compared to the existing AS 2502. Paragraph .18 of the existing AS 2502 provides guidance on auditing a fair value measurement when observable inputs are not available. While evaluating management’s models are incorporated into the Proposed Standard, paragraph .A10 of the Proposed Standard could be expanded to include the prior guidance on auditing unobservable inputs. For example, the guidance included in paragraphs .05, .06 and .08 of the existing standard may be beneficial to include in the Proposed Standard.

**Comment on Auditing Standards Amended by the Proposal**

*Amendments to AS 1105*

*Disclaimers of information and restrictions on the use of information:* With regard to the Note to be added to paragraph .08 of AS 1105, while we agree that restrictions, limitations, or disclaimers should be evaluated for the effect on the reliability of audit evidence, we believe

Office of the Secretary  
Public Company Accounting Oversight Board  
August 30, 2017  
Page 16

additional guidance on how to evaluate the potential effects would be useful, in order to drive greater consistency among auditors in this area.

**(Q39 and 40) *Audit Evidence Regarding Valuations Based on Investee Financial Condition or Operating Results***

The conforming amendments to AS 1105 expand on the requirements in AS 2503 when fair value is based on an investee's financial condition or operating results that are a significant input to fair value. We believe that these requirements may be difficult to practically apply to specific fair value measurements.

The Note to paragraph .A4, including footnote 5, acknowledges that ASC 820 permits, when conditions are met, net asset value (NAV) to be used as a practical expedient of fair value. We believe the Proposed Standard could be enhanced to more clearly articulate the requirements for testing the investments that meet the criteria to be recorded at NAV, as a practical expedient.

Similar to investee financial information, the NAV information may only be available from the instrument's issuer. This NAV is often only published by the investee fund, not through an exchange or a third-party pricing service. In addition, there are no publicly available market transactions to support the NAV and often times the NAV is solely evidenced by values provided by the investment manager without underlying audited financial statements available to support the company's year-end investment (due to the timing of the release of the audited financial statements or differing balance sheet dates). Current practice generally involves obtaining evidence that the criteria to use NAV as a practical expedient has been appropriately applied, and testing the accuracy of the NAV used or applying analytical techniques to roll forward the value from the date of the last audited financial statements, depending on the length of the gap period.

Paragraph .A2(d) of AS 1105 adds a requirement to identify if the available financial statements of an investee were audited in accordance with PCAOB standards. Further, footnote 56 on page A3-44 of the Proposal makes clear that the auditor is to consider the difference in audit procedures that may have been necessary to obtain sufficient appropriate audit evidence under PCAOB standards. We are concerned that this requirement will not be operational without undue cost because many investee financial statements are audited in accordance with other auditing standards, and paragraph .A3 does not indicate how the auditor should respond if the audit is performed in accordance with another set of standards.

We believe that the intended applicability of the amendments could be enhanced. The Note to paragraph .A1 of Appendix A does not incorporate the additional discussion on page A3-43, including footnotes 54 and 55 of the Proposal, to better distinguish between which equity method investments are included in the conforming amendment to AS 1105 and which equity method investments are subject to AS 1205, *Part of the Audit Performed by Other*

Office of the Secretary  
 Public Company Accounting Oversight Board  
 August 30, 2017  
 Page 17

*Independent Auditors* (AS 1205). Footnote 1 on page A2-10 notes that guidance on equity method investments (where the net assets are recorded based on underlying financial statements) does not apply if the investee financial information is audited by an auditor other than the principal auditor, or the other auditor is supervised under AS 1201 or the work of the other auditor is used under AS 1205. AS 1205 notes that investments accounted for under the equity method (where the underlying audit report is used to record the investor's equity in the underlying net assets) are in the position of a "principal auditor using the work and reports of other auditors." While the guidance appears consistent, it is unclear which equity method investments do not fall under AS 1205, unless audited financial statements are not available.

### **Other**

**(Q12 and Q14)** We believe that the Proposed Standard should be applicable to audits of emerging growth companies (EGCs). In our experience, estimates are frequently encountered when auditing an EGC. Because users of financial statements of EGCs generally have less visibility into the companies, as noted by the Board, and because auditing estimates often involve a level of auditor judgment, there is an increased importance on quality and consistency in the application of auditing standards related to the auditing of estimates.

Likewise, we also believe that the Proposed Standard should be applied to audits of brokers and dealers. We agree with the Board's assertion that having different standards for auditing estimates for some entities (i.e., EGCs and brokers and dealers) has the potential to create confusion and may require audit firms to maintain different methodologies for auditing estimates.

**(Q15)** We believe that the simultaneous adoption of the Proposed Standard and the *Proposed Amendments to Auditing Standards for Auditor's Use of the Work of Specialists* (the Specialist Proposal) would result in significant efficiencies and prevent inconsistencies in their application. The use of a specialist in an audit frequently occurs in connection with auditing an accounting estimate, and the Proposed Standard and the Specialist Proposal include references to each other.

If the final standard and related amendments are approved by the SEC on or before June 30, 2018, we would support the standard and amendments becoming effective for audits of periods ending on or after December 15, 2019. We believe this would allow sufficient time for audit firms to make the necessary adjustments to their system of quality controls and update their methodologies, guidance, tools, and templates and to develop and provide training.



Office of the Secretary  
Public Company Accounting Oversight Board  
August 30, 2017  
Page 18

\* \* \* \* \*

We appreciate the Board's and Staff's careful consideration of our comments, and welcome the opportunity to discuss our comments further with the Board and Staff. If you have any questions regarding our comments included in this letter, please do not hesitate to contact Ilene Kassman (212-909-5667 or [ikassman@kpmg.com](mailto:ikassman@kpmg.com)).

Very truly yours,

**KPMG LLP**

cc:

**PCAOB**

James R. Doty, Chairman  
Lewis H. Ferguson, Board Member  
Jeanette M. Franzel, Board Member  
Steven B. Harris, Board Member  
Martin F. Baumann, Chief Auditor and Director of Professional Standards

**SEC**

Jay Clayton, Chair  
Michael S. Piwowar, Commissioner  
Kara M. Stein, Commissioner  
Wesley Bricker, Chief Accountant  
Julie A. Erhardt, Deputy Chief Accountant  
Marc A. Panucci, Deputy Chief Accountant  
Sagar S. Teotia, Deputy Chief Accountant



August 30, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Re: PCAOB Release No. 2017-002 Rulemaking Docket Matter No. 043 Proposed Auditing Standard – *Auditing Accounting Estimates, Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards***

Dear Members of the Board and Staff:

Mazars USA LLP (“Mazars”) welcomes the opportunity to comment on PCAOB Release No. 2017-002 Rulemaking Docket Matter No. 043 Proposed Auditing Standard – *Auditing Accounting Estimates, Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards* (“Docket 043”). Mazars appreciates the PCAOB’s efforts since the issuance of Staff Consultation Paper (“SCP”), *Auditing Accounting Estimates Including Fair Value Measurements*. We recognize the Board’s considerations of the feedback received from the SCP, the numerous discussions with the members of the Standing Advisory Group of the PCAOB, and the data gathering and analysis from recent inspections and available economic information. We continue to support the PCAOB for the proposed combination of audit standards and amendments to certain other standards to enhance the overall quality of auditing accounting estimates, including fair value measurements.

Mazars is a firm with over 100 partners and 700 professionals across the United States (“U.S.”), an independent member firm of the Mazars Group, an organization with over 18,000 professionals in more than 79 countries around the world, and a member of Praxity, a global alliance of independent firms. As a U.S. registered public accounting firm, and a member of an international network, Mazars holds a unique perspective that may differ from those of our international counterparts due to variations in the client population and in the regulatory and litigation environment.

Our views on Docket 043 are driven primarily by our position in the U.S. marketplace as a medium-sized public accounting firm servicing mostly small to mid-size business issuers (accelerated and non-accelerated filers) in a variety of industries, Form 11-K filers, registered investment companies, and broker-dealers. As such, our primary focus is to address our concerns and challenges as they relate to companies with similar characteristics to our current client base as well as to similar accounting firms.

We present our thoughts on Docket 043 in the following categories:

- I. Proposed Audit Standard
- II. Emerging Growth Companies and Broker-Dealers
- III. Risks of Material Misstatements and Risk Assessment
- IV. Audit Evidence
- V. Estimates and Estimate Ranges
- VI. Economic Considerations and Unintended Consequences

MAZARS USA LLP

135 WEST 50TH STREET – NEW YORK, NEW YORK – 10020

TEL: 212.812.7000 – FAX: 212.375.6888 – [WWW.MAZARSUSA.COM](http://WWW.MAZARSUSA.COM)

MAZARS USA LLP IS AN INDEPENDENT MEMBER FIRM OF MAZARS GROUP.





- VII. Academic Studies
- VIII. Effective Date
- IX. Conclusion

#### **I. Proposed Audit Standard**

The introduction of the proposed auditing standard clearly outlines the scope and provides a clear definition of an accounting estimate. Accounting estimates are challenging to audit due to the subjectivity of the inputs, measurement uncertainty, and built-in management biases. We understand the Board’s concerns regarding the application of professional skepticism in identifying and addressing the risk inherent in certain estimates. The current auditing guidance for professional skepticism is contained within multiple auditing standards. We agree with incorporating specific reminders of the auditor’s responsibility to challenge managements’ assertions with regard to estimates developed and respond with an appropriate audit plan. However, we do not agree that the objective of the proposed standard should include the requirement to assure management’s estimates are “free from bias.” The proposed auditing standard should adequately guide the auditor to design an audit response that appropriately challenges the accounting estimate and addresses obtaining reasonable assurance that the estimate in the context of the applicable financial reporting framework is not materially misstated.

#### **II. Emerging Growth Companies and Broker-Dealers**

The proposed standard should apply to the audits of Emerging Growth Companies (“EGCs”) as it would be of particular benefit to audits of EGCs because accounting estimates are common in the financial statements of EGCs. Further, the reasonableness of accounting estimates for EGCs is critical because there is generally less comparable information available to investors regarding such companies.

Our Firm’s broker-dealer clients are generally non-clearing introducing broker-dealers (“IBs”). With respect to accounting estimates at our broker-dealer clients, IBs generally have minimal estimates, or in many cases, estimates that do not affect net capital (i.e. estimated useful lives of assets; credit losses as credit is not extended by the IB). Areas addressed by the Board in the proposal that also relate to audits of broker-dealers are embedded elsewhere in this letter relating to different approaches to substantive audit procedures, third-party pricing sources, and estimation methodology.

#### **III. Risks of Material Misstatements and Risk Assessment**

Paragraph .10b in Appendix 1 of Docket 043 states that the auditor should evaluate whether the methods used by management to develop accounting estimates are “appropriate for the nature of the related account or disclosure and the business, industry, and environment in which the company operates.” While we agree industry and environment should be considered in assessing risk of material misstatement, we do not agree auditors should be required to evaluate whether the method used is appropriate for the industry and environment in which the company operates. We believe that the Board should eliminate its reference to “business, industry, and environment.”



Paragraphs .05 - .07 in Appendix 1 of Docket 043 reaffirms that the nature, timing and extent of substantive audit procedures are directly impacted as the risk of material misstatement increases. The audit procedures outlined in paragraph .07 and the additional referenced paragraphs are clear, and the potential for a combination of procedures needed as risk increases is also understandable. However, the guidance is unclear as to how an auditor would precisely apply the new guidance at different levels of risk along a given risk of material misstatement continuum. As a result, what may be deemed an acceptable combination of audit procedures based on the auditor's assessment of risk of material misstatement could lead to inconsistent application of paragraph .07. We believe additional guidance is needed in order for application to be more consistent among auditors as well as for enhanced audit quality.

#### **IV. Audit Evidence**

We are appreciative that Docket 043 is responsive to comments received on the SCP about requesting separation of the use of specialists from third-party pricing services. We note, however, that the guidance in Appendix A does not appear to be clear enough about the relevance and reliability of audit evidence obtained from a third-pricing service deemed to be objective and not at all influenced by the issuer.

Paragraph .A2 in Appendix 2 of the Board's proposal states, "The auditor should read available financial statements of the investee to obtain an understanding of...[whether an]...investee's financial statements were audited, [and] whether the report of the investee's auditor indicates that audit was performed under PCAOB standards and expressed an unqualified opinion." The implication is that if the investee auditor audited its financial statements using a recognized standard other than that of the PCAOB that they would not be acceptable audit evidence. The Board should reconsider its intent because of the existence of other reliable recognized audit standards.

When an auditor assesses risk, it is necessary that the engagement team addresses management bias in its development of estimates. The Board proposes an amendment to AS 2110.52 that provides a new requirement for the auditor to include in its engagement team's brainstorming sessions, a discussion of how the financial statements could be manipulated through management bias in estimates of significant accounts and disclosures. Historically, many of our engagement team discussions have also addressed management bias and its potential for material misstatement due to fraud during the planning phase, and we fully agree that the Board's proposed amendment to AS 2110.52 will support improved assessment of risk material misstatement.

#### **V. Estimates and Estimate Ranges**

In general, estimates can be characterized in a range from simple to complex. Therefore the auditing of certain complex fair value estimates using an auditor's independently developed range may be significantly more difficult due to high estimation uncertainty than ascertaining the reasonableness of a simple accounting estimate. If a company's estimate falls within an auditor's independently developed range, the auditor should be able to make the determination that the company's estimate is reasonable. However, if the auditor's independently developed range falls outside of his or her established materiality level, the auditor's range should not automatically be rendered inappropriate as the development of independent expectations includes auditor



judgment and subjectivity. Therefore, we ask the Board to reconsider its proposed guidance on “range of estimates,” so that a range in certain circumstances is not automatically excluded from audit evidence.

Also, the Board proposes in Appendix 3 that the auditor obtain data and assumptions from a third party and to create assumptions independent of those of the company. This guidance is too restrictive and somewhat impractical. In all cases, it may not be possible or necessary to obtain data and assumptions from a third party and to create assumptions independent of those of the company. We ask the Board to maintain unchanged, the extant guidance allowing the auditor to use management’s assumptions when developing independent expectations.

## **VI. Economic Considerations and Unintended Consequences**

The implementation of any new auditing standard and amendments to certain other auditing standards will have a disproportionate impact on medium-sized accounting firms and their clients than on the larger firms and their clients. Incremental costs notwithstanding, we support an appropriate balance in the need for change in the current auditing standards for accounting estimates and the Board’s continued consideration of our observations on Docket 043, specifically in circumstances where the standard implies onerous or impractical performance obligations.

As stated in Docket 043, the Board acknowledges that imposing new audit requirements may result in additional costs to auditors and their clients with the assumption that at least some of the auditor’s costs could be passed on to the client. AS 1105 requires the auditor to obtain sufficient appropriate audit evidence to gain reasonable assurance, not absolute assurance, to support management’s assertions presented in the financial statements and the related disclosures. The proposed standards could result in unnecessary, duplicative time and expense to the client and auditor. In addition, no matter the size of the accounting firm, training and implementation costs will be incurred to ensure compliance with the standards.

Further, an unintended consequence of the proposed standards could lead clients to direct their resources away from more complex areas, to avoid the duplication of time and expense, because they perceive that the auditor will spend the time anyway and potentially come up with a proposed adjusted estimate that management can record in the financial statements.

## **VII. Academic Studies**

There is always a benefit from academic studies when considering new auditing standards. We believe the academic studies performed to date have provided meaningful information to consider in developing the proposed auditing standard.

## **VIII. Effective Date**

Implementing a new standard such as the proposed standards in Docket 043 requires training, analysis of the implications on all audit engagements when auditing estimates, including fair value measurements and making adjustments to quality control procedures. We recommend an effective date of years ending at least two years



after the SEC approves the final standards. The two year window should give medium-sized firms the ability to analyze, prepare, and implement the new standards.

#### **IX. Conclusion**

We applaud the Board and the Staff in its efforts in reassessing its existing standards relating to the audit of accounting estimates, including fair value measurements, which will lead to enhancements in audit quality and consistency in application of the standards. We remain committed to participating in future discussions with the Board and the Staff about how to best implement appropriate recommendations generated by the proposed auditing standard and amendments that would further enhance audit quality and improve transparency. Lastly, we fully support the mission of educating investors and other users of financial statements about the process of auditing accounting estimates, including fair value measurements, of issuers and broker-dealers.

We would be pleased to discuss our comments with you at your convenience. Please direct any questions to Wendy B. Stevens, Practice Leader, Quality & Risk Management, at (212) 375-6699 (wendy.stevens@mazarsusa.com) or David Bender, Quality & Risk Management, at (516) 620-8497 (david.bender@mazarsusa.com).

Very truly yours,

*Mazars USALLP*  
Mazars USA LLP

August 30, 2017

Ms. Phoebe W. Brown  
Office of the Secretary  
PCAOB  
1666 K Street, N.W.  
Washington, D.C. 20006-2803  
[comments@pcaobus.org](mailto:comments@pcaobus.org)

**Delivered Electronically**

**Re: PCAOB Rulemaking Docket Matter No. 043/Release No. 2017-02,  
Proposed Auditing Standard – *Auditing Accounting Estimates, Including  
Fair Value Measurements and Proposed Amendments to PCAOB Auditing  
Standards***

**And**

**PCAOB Rulemaking Docket Matter No. 044/ Release No. 2017-03, *Proposed  
Amendments to Auditing Standards for Auditor’s Use of the Work of  
Specialists***

Dear Board Members:

This letter is submitted by the National Association of Real Estate Investment Trusts® (NAREIT) in response to the solicitations for public comment by the Public Company Accounting Oversight Board (PCAOB or Board) with respect to Proposed Auditing Standard, *Auditing Accounting Estimates, Including Fair Value Measurements* (Estimates Proposal) and the *Proposed Amendments to Auditing Standards for Auditor’s Use of Specialists* (Specialists Proposal) (collectively, the Proposals).

NAREIT is the worldwide representative voice for real estate investment trusts (REITs) and publicly traded real estate companies with an interest in U.S. real estate and capital markets. NAREIT's members are REITs and other businesses throughout the world that own, operate and finance income-producing real estate, as well as those firms and individuals who advise, study and service those businesses.

REITs are generally deemed to operate as either Equity REITs or Mortgage REITs. Our members that operate as Equity REITs acquire, develop, lease and operate income-producing real estate. Our members that operate as Mortgage REITs finance housing and commercial real estate, by originating mortgages or by purchasing whole loans or mortgage backed securities in the secondary market.



NATIONAL  
ASSOCIATION  
OF  
REAL ESTATE  
INVESTMENT  
TRUSTS®



REITs:  
BUILDING  
DIVIDENDS  
AND  
DIVERSIFICATION®





Ms. Phoebe W. Brown  
 August 30, 2017  
 Page 2

A useful way to look at the REIT industry is to consider an index of stock exchange-listed companies like the FTSE NAREIT All REITs Index which covers both Equity REITs and Mortgage REITs. This Index contained 228 companies representing an equity market capitalization of \$1.121 trillion at July 31, 2017. Of these companies, 188 were Equity REITs representing 94% of total U.S. stock exchange-listed REIT equity market capitalization (amounting to \$1.054 trillion)<sup>1</sup>. The remainder, as of July 31, 2017, is represented by 40 stock exchange-listed Mortgage REITs with a combined equity market capitalization of \$67 billion.

NAREIT previously responded to the PCAOB's August 19, 2014 PCAOB Staff Consultation Paper on *Auditing Accounting Estimates and Fair Value Measurements* (NAREIT letter dated October 31, 2014<sup>2</sup>) and the May 15, 2015 PCAOB Staff Consultation Paper on *The Auditor's Use of the Work of Specialists* (NAREIT letter dated August 3, 2015<sup>3</sup>). We appreciate the PCAOB's effort to address a recommendation we previously made in not viewing a third-party expert hired by management as an extension of management. We agree with the Specialists Proposal's guidance to provide a risk-based approach in the application of audit procedures surrounding external experts hired by management. Additionally, we generally agree with the format that the Board developed to apply different audit procedures depending on whether the specialist is hired by management, employed by management, hired by the auditor, or is employed by the auditor. While we appreciate these aspects of the new iterations of the Proposals, we continue to question why a fundamental change in audit guidance is necessary.

This letter has been developed by a task force of NAREIT members, including members of NAREIT's Best Financial Practices Council. Members of the task force include financial executives of both Equity and Mortgage REITs, representatives of major accounting firms, institutional investors and industry analysts.

*Why is a change to the existing audit framework for auditing accounting estimates and the auditor's use of specialists warranted?*

NAREIT is not persuaded that a change to the audit framework for the audit of accounting estimates or the auditor's use of specialists is necessary. In NAREIT's view, any expansion of audit requirements for accounting estimates and corresponding audit work for the work of specialists are unnecessary changes given the amount of work performed by auditors today. Additionally, adding additional audit work does not automatically lead to more accurate accounting estimates.

---

<sup>1</sup> <https://www.reit.com/sites/default/files/returns/FNUSIC2017.pdf>

<sup>2</sup> <https://www.reit.com/sites/default/files/NAREIT%20Comment%20Letter%20on%20PCAOB%20Staff%20Consultation%20Paper%20Auditing%20Estimates%20and%20FV%20Measurements%20FINAL.pdf>

<sup>3</sup> <https://www.reit.com/sites/default/files/media/PDFs/NAREITCommentLetter20150803.pdf>





Ms. Phoebe W. Brown  
 August 30, 2017  
 Page 3

NAREIT's member companies observe that external auditors currently perform a significant amount of audit work surrounding accounting estimates prepared by specialists pursuant to existing audit standards. For example, multiple member companies have indicated that the audit fees for auditing fair value estimates of real estate and auditing purchase price allocations in business acquisitions at times *exceed* the fees paid to the third-party valuation companies that develop the estimates. In NAREIT's view, the proposed amendments to audit guidance in the Estimates Proposal and the Specialists Proposal do not pass a cost benefit test.

*Why do the Proposals repeatedly use the words "inherent management bias" and "moral hazard?"*

The Proposals include a negative connotation toward management's responsibility in preparing financial statements. The repeated use of the words "management bias" and "moral hazard" seem to go above and beyond the auditor's responsibility to conduct the audit with professional skepticism. These words imply that management has a predisposition to inflate financial results instead of being stewards of public capital and reporting financial results faithfully in accordance with U.S. GAAP. Given the negative tone, auditors may feel compelled to do more audit work than they do today. In our view, the Proposals would expand the work that auditors perform, with no increase in the reliability or credibility of the audited financial statements. Further, as discussed below, there is no evidence that the existing auditing standards on auditing accounting estimates or the auditor's use of the work of specialists fail to detect significant errors in financial statements. In short, NAREIT sees no basis to conclude that increased audit work (and corresponding audit fees) would provide any measurable benefit to improve audit quality.

*What are the underlying problems that the Estimates Proposal and Specialists Proposal are trying to solve?*

NAREIT does not believe that either the Estimates Proposal or the Specialists Proposal articulate a pervasive problem that would be solved by a change in auditing standards. The Proposals seem to justify a significant increase in audit work (and cost) based on academic research papers and limited circumstances where *existing audit guidance was not followed by the auditor*. The Specialists Proposal acknowledges that "inspection staff have observed a decline in the number of instances by larger firms in which auditors did not perform sufficient procedures related to the work of an auditor's specialist."<sup>4</sup> Failure to conduct an audit in accordance with current audit guidance does not, in and of itself, warrant revised auditing standards. Rather, this seems to be an "easy fix" for the PCAOB to address in its inspections of audits conducted by public accounting firms.

---

<sup>4</sup> <https://pcaobus.org/Rulemaking/Docket044/2017-003-specialists-proposed-rule.pdf> at page 14.



Ms. Phoebe W. Brown  
August 30, 2017  
Page 4

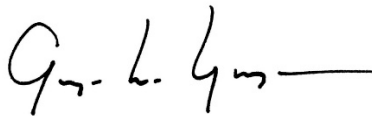
*Summary*

NAREIT appreciates the PCAOB's staff efforts in their endeavor to enhance audit quality. However, NAREIT does not believe that the PCAOB has presented solid evidence to warrant further amendments to auditing standards. While the PCAOB cites academic research papers and limited examples of where the auditor failed to follow existing auditing standards, NAREIT fails to recognize these issues as the basis for a change in auditing standards. In the event that the PCAOB decides to move forward with some change to existing auditing standards, NAREIT recommends that the PCAOB use a targeted approach that addresses the root cause of problems that are identified.

\* \* \*

We thank the PCAOB for the opportunity to comment on the Staff Paper. If you would like to discuss our views in greater detail, please contact George Yungmann, NAREIT's Senior Vice President, Financial Standards, at [gyungmann@nareit.com](mailto:gyungmann@nareit.com) or 1-202-739-9432, or Christopher Drula, NAREIT's Vice President, Financial Standards, at [cdrula@nareit.com](mailto:cdrula@nareit.com) or 1-202-739-9442.

Respectfully submitted,



George L. Yungmann  
Senior Vice President, Financial Standards  
NAREIT



Christopher T. Drula  
Vice President, Financial Standards  
NAREIT

♦ ♦ ♦



National Association of State Boards of Accountancy

150 Fourth Avenue North ♦ Suite 700 ♦ Nashville, TN 37219-2417 ♦ Tel 615/880-4200 ♦ Fax 615/880-4290 ♦ Web [www.nasba.org](http://www.nasba.org)

August 30, 2017

The Office of the Secretary  
The Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803

**Re: PCAOB Rulemaking Docket Matter No. 043 - Proposed Auditing Standard *Auditing Accounting Estimates, Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards***

Dear Members and Staff of the Public Company Accounting Oversight Board:

We appreciate the opportunity to offer our comments on the PCAOB Rulemaking Docket Matter No. 043 - Proposed Auditing Standard *Auditing Accounting Estimates, Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards* (the Proposal).

The National Association of State Boards of Accountancy's (NASBA) mission is to enhance the effectiveness and advance the common interests of the Boards of Accountancy that regulate all certified public accountants and their firms in the United States and its territories.

We offer the following comments on the Proposal.

**GENERAL COMMENTS**

**Need for the Proposal**

(a) We understand that the Proposal will replace/ amend the following current standards with a single standard:

- *Auditing Accounting Estimates* (AS 2501)
- *Auditing Fair Value Measurements and Disclosures* (AS 2502)
- *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AS 2503)

We commend the PCAOB on its efforts to develop a single standard on auditing accounting estimates including fair value measurements and to replace multiple existing standards. The increasing complexity of financial instruments creates new risks which need to be assessed and addressed by auditors. In addition, recent accounting standards on fair value measurements, expected credit loss and other financial reporting standards mandate new accounting and disclosure requirements which contain disclosures that need to be audited. Thus, we would like to express our overall support for recognizing a need for developing the Proposal.

The Office of the Secretary  
The Public Company Accounting Oversight Board  
August 30, 2017  
Page 2 of 4

- (b) It appears that the Proposal has been developed to address findings identified during the PCAOB's inspection process. As State Boards, we would encourage the PCAOB to continue the development of other standards where it believes audit quality can be improved in order to protect the public interest, not just through areas that have been identified during the inspection process. Auditing standards need to align with the accounting guidance at the time the guidance is issued and implemented. Otherwise, there is a risk that the standard setting process can eventually become ineffective and obsolete. For example, as companies move to digital currency auditors may start using big data and other innovations to audit these transactions.
- (c) The proposed amendments do not include consideration of management's controls related to company specialists or company engaged specialists that may be utilized in developing an estimate. We believe management controls over selection and supervision of a company specialist as well as controls over inputs provided to the specialist would be important for the auditor to consider. Application guidance should be provided regarding consideration of these types of controls.

### **Responding to the Risks of Material Misstatement**

Paragraph .07 of the Proposal describes substantive procedures that auditors need to perform in order to respond to the identified and assessed risks of material misstatement associated with accounting estimates.

We recommend adding further application guidance to address situations where an estimate is deemed a low inherent risk, for example, auditing an estimate for the allowance of doubtful accounts and write-offs where the actual historical write offs are immaterial.

### **SPECIFIC QUESTIONS**

*Question 17. Are the scope and objective of the proposed standard clear?*

We believe that the scope and objective of the Proposal are clear.

*Question 18. Are there challenges in tailoring the scalability of the auditor's response to identified risks of material misstatement as described in the proposal? If so, what are they and how can they be addressed?*

Further improvements can be made to the Proposal to tailor the audit response based on the level of inherent risk associated with different types of estimates. For example, the amount of audit effort related to the estimate of the useful life of depreciable assets will likely differ significantly from auditing valuations of private investments.

The Office of the Secretary  
The Public Company Accounting Oversight Board  
August 30, 2017  
Page 3 of 4

*Question 19. Should the proposed standard limit the auditor's selection of an approach and, if so, under what circumstances?*

The audit approach is a matter of professional judgement which should be documented by the auditor. Thus, we don't believe that the Proposal should limit the auditor's selection of the audit approach.

*Question 20. Are the proposed requirements for evaluating the company's method used to develop accounting estimates clear? Are there other matters that are important to evaluating a method that should be included in the proposed requirements?*

- (a) We recommend including additional application guidance on auditing internal controls and management's process of developing estimates.
- (b) We believe that the Proposal should include further discussion on the auditor's consideration of management's bias. For example, if the company historically records estimates on the high end of the range and subsequently moves to the lower end of the range, auditors should consider performing additional procedures to obtain a reasonable assurance that the shift in developing the current estimate is supported by a rational change in conditions impacting the estimate.

*Question 21. Are there any further requirements regarding testing internal data or evaluating the relevance and reliability of external data that the Board should consider?*

We recommend including additional guidance in circumstances where the auditor's specialist is required to evaluate work performed by the management's specialist. For example, if management's specialist is using a proprietary model, what special procedures might the auditor or auditor's specialist perform in auditing this estimate.

*Question 23. Are the proposed requirements for the auditor to identify significant assumptions and to evaluate whether the company has a reasonable basis for significant assumptions used clear? Do those requirements pose any practical difficulties and, if so, how could the proposed standard be revised to address those difficulties?*

Paragraph 16b (i-v) discusses information the auditor will use to evaluate significant assumptions. We recommend including application guidance outlining the level and amount of documentation expected from auditors to comply with the standard requirements.

*Question 28. Are the proposed requirements for developing an independent expectation when using the company's data, assumptions, or methods clear?*

The Office of the Secretary  
The Public Company Accounting Oversight Board  
August 30, 2017  
Page 4 of 4

We recommend including additional guidance in the situations where auditors may need to use a specialist or expert outside their firm.

*Question 31. Are there other matters relevant to financial instruments that should be considered or included in Appendix A of the proposed standard?*

Consider new types of instruments emerging in the market, e.g. digital assets.

*Question 34. Are the requirements for using information from a pricing service clear? Are there other requirements that should be considered? For example, are there other methods used by pricing services to generate pricing information that are not currently addressed in the proposed standard?*

We believe that paragraph A6 should be expanded similar to paragraph A7 to provide examples of procedures to be performed by auditors.

*Question 36. Is the auditor's responsibility when evaluating relevance and reliability of pricing information from multiple pricing services clear?*

Paragraph A8 of the Proposal discusses the situations where the information provided by management is obtained from multiple pricing services. It might be worthwhile to define how many pricing sources are implied by “multiple” because it can be interpreted in different ways. Practitioners could conclude that more than one would meet the intention of the guidance.

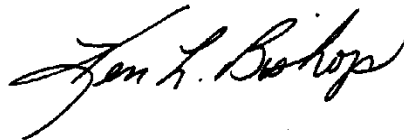
---

Again, we appreciate the opportunity to comment on the Proposal.

Sincerely,



Telford A. Lodden, CPA  
NASBA Chair



Ken L. Bishop  
NASBA President and CEO



August 22, 2017

**VIA Email**

Office of the Secretary  
PCAOB  
1666 K Street, N.W.  
Washington DC 20006-2803  
[comments@pcaobus.org](mailto:comments@pcaobus.org)

RE: Docket Matter No. 43/Release No. 2017-002, *Proposed Auditing Standard – Auditing Accounting Estimates, Including Fair Value Measurements* and  
Docket Matter No. 44/Release No. 2017-003, *Proposed Amendments to Auditing Standards for Auditor’s Use of Specialists*

**INTRODUCTION**

The National Venture Capital Association (“NVCA”) represents the vast majority of American venture capital under management.<sup>1</sup> Venture capital funds invest across the spectrum of company stages of development, typically from early stage startup through IPO or acquisition.

NVCA’s comments are informed by its CFO Task Force. This group is made up of the Chief Financial Officers and Operating Partners of more than 100 of our member firms. Most of our CFO Task Force Members are CPAs and many have audit experience

---

<sup>1</sup> Venture capitalists are committed to funding America’s most innovative entrepreneurs, working with them to transform breakthrough ideas into emerging growth companies that drive U.S. job creation and economic growth. As the voice of the U.S. venture capital community, the National Venture Capital Association empowers its members and the entrepreneurs they fund by advocating for policies that encourage innovation and reward long-term investment. As the venture community’s preeminent trade association, NVCA serves as the definitive resource for venture capital data and unites its nearly 400 members through a full range of professional services. For more information about the NVCA, please visit [www.nvca.org](http://www.nvca.org).

Comment of the National Venture Capital Association  
*Accounting Estimates Including Fair Value Measurements*  
*Auditor's Use of Specialists*  
August 22, 2017

with leading national firms. They are responsible for the financial statements of hundreds of venture capital funds. Our task force members also offer a perspective on the audit process related to hundreds of companies across numerous industries.

The typical venture capital fund ("VCF") is a limited partnership in which the bulk of the capital commitments come from pension funds, foundations, endowments, insurance companies and other institutional investors. VCFs must provide these limited partner investors ("LPs") with audited financial statements prepared in accordance with ASC Topic 946 on Investment Companies. As such, VCFs report assets at fair value in accordance with ASC Topic 820. The most important elements of VCF financial statements are the values of their portfolio company assets. Because many of these portfolio companies do not yet have proven business models or technologies they are valued based upon "level 3" inputs. Therefore, fair values exhibit a great deal of estimation uncertainty. Realized returns from exits can range from liquidation value to many multiples of the fund's investment.

We are filing a comment letter on these two PCAOB Proposals for several reasons. First, NVCA's members -- although they are primarily private entities -- are intensely interested in these PCAOB rules. Audit firms use the same procedures for auditing private funds as they use for publicly traded ones. These procedures are driven by PCAOB standards and examination practices. We noted this in our lengthy letter in response to the 2014 Staff Consultation Paper, *Auditing Estimates Including Fair Values*. That letter<sup>2</sup> sets out the difficult and persistent problems that arise from auditors' use of standardized audit procedures to test the values of venture capital assets. Excessive audit procedures around uncertain estimates of value waste scarce resources and can convey an erroneous and inappropriate sense of precision. Furthermore, the use of valuation techniques that are not useful to marketplace participants is inconsistent with the requirements to Topic 820. I will not belabor these points or repeat the comments in our earlier letter on fair value audits. However, the comments in that letter remain valid. I commend them for your further consideration.

We are combining our comments on these two proposals because, as noted in the Staff Consultation Paper, *Auditors' Use of the Work of Specialists*, there is significant overlap between issues arising from audits of estimates and auditors' use of specialists. This is especially true for VCFs. The reasons for this are set out in NVCA's letter in

---

<sup>2</sup> [https://pcaobus.org/Rulemaking/Docket043/042\\_NVCA.pdf](https://pcaobus.org/Rulemaking/Docket043/042_NVCA.pdf)



Comment of the National Venture Capital Association  
*Accounting Estimates Including Fair Value Measurements*  
*Auditor's Use of Specialists*  
August 22, 2017

response to the SCP on Use of Specialists. Unnecessary, ineffective and inappropriate use of valuation specialists is a major contributor to the excessive cost and effort that VCFs continue to experience in obtaining GAAP audits. Rather than reiterate those points here, I will reaffirm those views, incorporate that letter<sup>3</sup> by reference and commend our comments there for your further consideration.

This letter is abbreviated compared to our earlier letters. One reason for this is that we know that both the PCAOB Chairman and senior staff are aware of our concerns and have provided our members meaningful opportunities to explain them. We very much appreciate the way the PCAOB has engaged with NVCA to date and we hope to continue to engage with the Board and the staff as any changes to these audit standards are implemented.

Finally, this letter is brief because we are not auditors and will not be responsible for interpreting or implementing any new standards. We will, of course feel the impact of any new standard. Therefore, rather than attempt to parse the proposed language we will offer some observations on the negative impact we expect from these amendments as well as some recommendations on mitigation.

## COMMENTS AND RECOMMENDATIONS

Auditors' implementation of any new standards will be driven by PCAOB oversight. Auditors' "default" position will be to do more checks and require more documentation of valuations and to use more experts. From our perspective, existing rules, inspection priorities and peer reviews are already driving enhancements to audit procedures. Our members already see an ongoing trend toward more documentation and more unnecessary testing.

The difficulty of auditing inherently judgmental assumptions and other inputs has already caused an undue emphasis on testing of things that can be audited, but are not material. Specifically, for estimates in which the most meaningful inputs are entirely subjective, auditors place undue emphasis on testing inputs that are the easiest to audit, even when such assumptions *per se* may have only a limited impact upon an estimate. For example, in auditing a discounted cash flow, auditors can spend considerable time evaluating whether the correct discount rate was used when it is the

---

<sup>3</sup> [https://pcaobus.org/Rulemaking/Docket044/045\\_NVCA.pdf](https://pcaobus.org/Rulemaking/Docket044/045_NVCA.pdf)

Comment of the National Venture Capital Association  
*Accounting Estimates Including Fair Value Measurements*  
*Auditor's Use of Specialists*  
 August 22, 2017

estimate of future cash flows that is the most meaningful input and creates the most volatility.

Every indication we have seen is that the proposed changes will accelerate and exacerbate the trend for auditors to do more and more work on matters that do not present a risk of a material misstatement. Therefore, the proposed standard on *Estimates* would be greatly enhanced by a clear recognition that the reasonable range of estimated values for some assets exceeds their materiality. Furthermore, we believe that any new standard should recognize that when the most relevant aspects of a valuation are inherently judgmental no amount of additional audit work will produce a value the uncertainty of which is less than the materiality standard. Nor can the use of experts to review inherently judgmental valuation inputs improve an audit when estimation uncertainty is greater than materiality.

We appreciate that the proposed new standards are written with an eye toward balancing risks and costs. The proposed text can be read to allow auditors a degree of flexibility in the conduct of fair value audits or the use of specialists. However, the consequences for an auditor subject to PCAOB oversight of doing too little work remain exponentially more troubling to the auditor than those for doing too much work. Given this reality, there is a glaring absence in the proposed language of any caution to avoid excessive work or any comfort regarding the exercise of professional judgment or discretion. Therefore, we are concerned by the absence in the proposed standards of encouragement to use judgment and to assess the cost-effectiveness of audit procedures or the use of specialists.

Further adding to this risk of wasteful audit work are long lists in the proposed standards of matters that the auditor should evaluate or consider. For example, proposed AS 2501.15 sets out a minimum of five “[f]actors that are relevant to identifying significant assumptions....”<sup>4</sup> Similarly 2501.16 requires the auditor to evaluate seven specific issues regarding the “reasonableness of significant assumptions [in a fair value estimate], both individually and in combination.”<sup>5</sup> Seven more “factors” are identified in 2501.17 that an auditor should “take into account ... in evaluating the reasonableness of [significant assumptions based on the company’s intent and ability to

---

<sup>4</sup> *Proposed Auditing Standard – Auditing Accounting Estimates, Including Fair Value Measurements*, P. A1-6. Available at <https://pcaobus.org/Rulemaking/Docket043/2017-002-auditing-accounting-estimates-proposed-rule.pdf>

<sup>5</sup> *Id.*, P. A1-7.

Comment of the National Venture Capital Association  
*Accounting Estimates Including Fair Value Measurements*  
*Auditor's Use of Specialists*  
 August 22, 2017

carry out a particular course of action].”<sup>6</sup> Nothing in these various lists directs consideration of a cost-benefit balance or whether further testing and analysis will meaningfully improve the auditor’s ability to assess the reasonableness of the estimate overall.

We believe it is likely that auditors will assume that each of these factors or considerations will need to be addressed in a granular way absent explicit language to the contrary. Therefore, if the Board intends for auditors to exercise professional judgment and apply these standards in a risk-based manner, we think it imperative that the standards explicitly state that not all listed factors and considerations should be part of a typical audit. More generally, the PCAOB should signal that wasteful, self-protective auditing practices are inconsistent with overall PCAOB standards. Otherwise, “factors to be considered” will become part of mandatory check lists to be documented, leading to excessive and meaningless audit procedures.

The Board intends that these standards be implemented in a risk-based, cost-effective manner. Release No. 2017-003 justifies application of the Use of Experts amendments to Emerging Growth Companies (ECGs), in part on the assumption that the new requirements will be implemented in a risk-based and “scalable” manner.<sup>7</sup> While we hope this is true, we are certain that the Release is correct where it says that “even a small increase in audit fees could negatively affect [small companies’] profitability and competitiveness.”<sup>8</sup> Experience drives us to skepticism about the likelihood of risk-based or scalable implementation. Therefore, we strongly recommend that the Board commit to a systematic and objective post-implementation review of the impact of any new standards on the costs and benefits of audits for smaller companies, including ECGs should the SEC accept the PCAOB’s recommendation to apply these new standards to ECGs.

## Summary of Recommendations

- The new standards need to explicitly recognize that there are situations in which estimation uncertainty exceeds materiality. In such situations, there may be limited value to applying additional testing and audit procedures, when the

---

<sup>6</sup> *Id.*, P. A1-8.

<sup>7</sup> *Proposed Amendments to Auditing Standards for Auditor’s Use of Specialists*, P. 58. Available at <https://pcaobus.org/Rulemaking/Docket044/2017-003-specialists-proposed-rule.pdf>.

<sup>8</sup> *Id.*

Comment of the National Venture Capital Association  
*Accounting Estimates Including Fair Value Measurements*  
*Auditor's Use of Specialists*  
August 22, 2017

additional procedures won't reduce estimation uncertainty to any meaningful degree.

- To promote professional judgment and risk-based application, the standards should explicitly state that not all listed factors and considerations should be part of a typical audit.
- The Board should send a general signal that wasteful, self-protective auditing practices are inconsistent with overall PCAOB standards.
- The Board should schedule a systematic and objective post-implementation review of the impact of any new standards on the costs and benefits of audits for smaller companies, including ECGs, should the SEC decide to apply these new standards to ECGs.

## Conclusion

NVCA appreciates the opportunity to participate in the PCAOB's rulemaking process and the Board's consideration of our views. We stand ready to work with the Board and the staff on this and other important matters. Please feel free to contact me at (202) 864-5925 or [bfranklin@nvca.org](mailto:bfranklin@nvca.org) or Justin Field, Vice President of Government Affairs at (202) 864-5929 or [jfield@nvca.org](mailto:jfield@nvca.org).

Sincerely yours,



Bobby Franklin  
President & CEO



September 4, 2017

Dear Public Company Accounting Oversight Board,

I would like to submit my comments on the proposed amendments to auditing standards outlined in PCAOB Release No. 2017-003/Rulemaking Docket Matter No 044 Auditor's Use of the Work of Specialists and Release No. 2017-002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates and their potential impacts. My perspective is one of an internal (employed and engaged) environmental specialist supporting public accounting firms. Since environmental liability and asset retirement obligation (ARO) estimates contain issues that will, in most cases, be subject to both proposals, my comments are not divided between the documents but presented for consideration together.

While my experiences have allowed me to observe certain complexities with both management estimates and specialists, I would not presume to have sufficient accounting and auditing knowledge to propose revisions or additions to the proposals. Instead, I hope the Board can use these experiences and examples of difficulties in performing the proposed requirements to inform their discussions and revisions, as appropriate. Some of these observations may represent challenges in meeting the current requirements and others of meeting the proposed requirements. If the Board desires further clarification of any of these comments to support its work, I would be pleased to discuss them further.

I am an environmental remediation specialist and have served as an audit specialist (employed and engaged) supporting financial audits of environmental liabilities and asset retirement obligations for approximately eight years. In most cases, I believe my work and those of my teammates, largely with bigger firms, has, as the specialist proposal described, "*exceed[ed] the existing requirements of AS 1210.*" In most cases, audits in which I was scoped to provide support did include "substantive procedures, including tests of details and substantive analytic procedures" of management estimates (typically using specialists) that were not measured at fair value but which were considered to contain a high degree of uncertainty and management judgment.

Such procedures included "*testing and evaluating the data used by the specialist, evaluating the methods and significant assumptions used by the specialist, and evaluating the relevance and reliability of the specialist's work and its relationship to the relevant assertion.*" For the most part, we considered the assumptions and conclusions of managements' engaged specialists to be as management's own for reasons I will discuss herein.

While I have been privileged to learn a great deal regarding accounting and auditing from my colleagues and my firms, my experience in audit support, naturally, was focused only on environmental liabilities and AROs. As such, the observations made here are not intended to describe circumstances involving other management estimates or specialists or imply there may be similarities, though it is possible that they may exist. I hope that these responses will be helpful to your team in spite of these limitations. My most general comments on the expected results of, and concerns with, the proposed requirements are included in the section "Overall Comments." Specific observations of difficulties auditing specialist estimates that I hope will also be of use to the Board are included in the "Specific Comments" section.

Regards,

J. M. Young,  
Principal, Environmental Specialist



**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter  
No 044 Auditor's Use of the Work of Specialists and Release No. 2017-  
002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

**OVERALL COMMENTS**

At the highest level, the proposed changes specify that management estimates, specifically including contingencies like environmental liabilities and AROs (which are commonly supported by the work of internal or external specialists), be subject to greater efforts, subject to their identification by the audit team as being of significant risk.

I first joined a “big 4” firm in the fall of 2009 when that firm (U.S.) had launched an initiative to assemble a group of environmental and other technical specialists specifically to provide environmental specialist support to the audit function. The newly formed group was invested with a former audit partner to guide the work of the group and to dialogue with the current firm audit partners that would form the body of internal customers. This would later be augmented by support from National Audit Practice leaders. I believe the success of that group, in terms of improving audit quality, was very much based upon the fact that both perspectives were represented: deep knowledge of auditing expectations and norms along with deep but “fresh” technical engineering perspectives with no auditing or accounting knowledge whatsoever. In hindsight, we would realize that the extensive communication gaps that existed between our professions in the microcosm of our team also existed in companies and external auditors at large. I believe both sides were surprised by the depth of knowledge the other did not possess.

For this reason, at first, the engagements were challenging, time-consuming, and, occasionally, contentious as specialists and audit team colleagues came to understand the complexities in each other's area of expertise and develop a common language between fields of expertise. Additionally company environmental specialists, both employed and engaged, unused to the additional scrutiny and challenge to their conclusions, were often times confused and frustrated by the new requests, questions, and additional company effort required. Over time, as understanding of the complexities, uncertainties, and level of subjectivity in these estimates grew within the firm, the audit procedures designed to address these risks focused increasingly in assessing management assumptions, data, and methodologies and quality of documentation. In the first couple of years, hundreds of specialist hours (and in at least one engagement, over a thousand) were added to some audits to the consternation of audit teams under market pressure to provide more and more cost efficient audits. Later, it was possible to streamline efforts somewhat due to the updated and refined risk methodologies promoted in 2010/2011 and, the maturation of the auditor-specialist communication. Even in these latter cases, assessments of site estimates (typically large estimates for large clients) were difficult to complete with appropriate levels of scrutiny, documentation, and senior review for less than 80 hours per estimate. On the other hand, procedures performed by auditor's specialists for other firms have involved less than 20 hours. It seems reasonable that the proposed guidance offered by the Board will allow the development of some consistency, both in scope and effort, across engagements and firms. However, I would offer to the Board based on my experiences, and for informational purposes, that the impact per estimate assessed on engagement budget may be in the range of 50+ specialist hours.

Based on the audits performed, I concur that the proposed changes in audit approach to estimates and using the work of specialists will increase audit quality and financial reporting of environmental liabilities and AROs. Out of over 200+ environmental liability estimates and AROs audits in which I participated, using the methods like those proposed, I have observed only one estimate without identifiable errors, based on the work performed. The majority of errors in the remaining estimates, while they were important from a sampling/extrapolation and internal controls standpoint, were not, alone, material to the financial statements.



**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter No 044 Auditor's Use of the Work of Specialists and Release No. 2017-002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

(In my experience, auditor specialists are rarely, if ever, informed of the potential for impact in combination with errors identified from other procedures) However, large errors were not as rare as might have been expected. At one site, a \$100M estimate was found to be over 100% understated in the first year of specialist support for the audit. At another, a \$1.5M estimate was found, in conjunction with environmental due diligence providers, to be more accurately estimated at \$150+M (two orders of magnitude understated). While our team did not maintain statistics about the frequency and size of errors, I would anecdotally estimate that approximately 10% to 15% of management environmental liability and ARO estimates contained significant errors or omissions requiring the company to revise the estimate before the close of the reporting period. Based on these observations, I agree that material errors in environmental liabilities may have gone, and may continue to go, undetected under the current requirements.

Further, it has been my observation that multiple public accounting firms are using environmental specialists to assist financial audits of environmental liability and ARO estimates; however, there is a noticeable disparity in the nature, scope, and objectives in these procedures between firms, and not uncommonly, between engagements performed for the same firm. I believe the PCAOB proposals for estimates and use of specialists will drive greater intra-firm and inter-firm consistency in the scope, objectives, completeness, quality, and documentation of specialist work and not only result in meaningful comparability in financial statements for investors but also 'level the playing field' for companies that may already have subject themselves to greater audit procedures relative to their competitors.

One concern I do have regarding the proposals is the references to assessing the company's engaged specialist's estimates as if it was the company's estimate. As I discuss below regarding what I believe to be a systemic bias and challenges to objectivity in estimates provided by environmental consulting/engineering providers, in general, I agree that company-engaged specialist estimates and data should be subject to greater auditing procedures. In practice, I have discovered large errors in engaged specialist estimates resulting from many factors.

What is not clear from the current or proposed standards, however, is if, or where, such consideration ends. For example, if I acknowledge that the engineering consultant's report may contain bias or a lack of objectivity for which I should design procedures; may I still appropriately rely upon the data provided by the specialist's subcontractors like laboratories, surveyors, soil engineers, remediation equipment providers, etc.? (For reference, a description of these roles in the "typical" environmental response is included in the Appendix). Does this data qualify as "*data from an external source*" used by the company? In terms of environmental liabilities, in particular, this data is typically extensive. In practice, such data is not confirmable or verifiable by the auditor or the auditor's specialist (as an example, we generally cannot collect soil samples and submit them for independent analysis). If possible, it would be helpful to have more explicit guidance or interpretation on the degree of separation at which it is appropriate to accept data without further assessment so that auditor and specialist effort is not wasted in the performance of unnecessary procedures.

#### **SPECIFIC COMMENTS**

##### **Systemic Estimate Bias**

In my experience, first as an environmental remediation consulting, providing environmental remediation estimates for corporate clients, and then as an audit environmental specialist, bias in the development of environmental liability estimates and ARO estimates is systemic and heavily skewed to underestimation. Due





**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter No 044 Auditor's Use of the Work of Specialists and Release No. 2017-002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

to motivations having nothing to do with the relevant accounting guidelines(see further discussion in the background information presented in the attached Appendix), about which the large majority of environmental remediation professionals have little knowledge, the default approach for environmental response professionals is to provide and advocate for, the lowest possible estimate. As such, upon discussion with the company's specialists (employed or engaged), it often becomes apparent that the estimate presented for financial reporting purposes, is either or both, not the best point in the range or demonstrates significant omissions.

In my observations, management typically has not addressed this bias in its review of the estimates prior to performance of audit procedures like those proposed by the Board. This appears to be due to a combination of management not being keenly motivated to search for "bad news" with respect to estimates and not having identified that a bias exists in the environmental/legal function in the first place due to the knowledge and culture gaps between the environmental/legal and accounting functions.

Interestingly, in many of the audit engagements which I have supported for multiple years in a row, management continues to insufficiently or ineffectively address this bias, despite its illumination by the repeated identification of understatement errors of various magnitudes. However, perhaps improvements in this area will be realized as the PCAOB proposals drive public accounting firms to provide more consistent attention to this area.

### **Moral Hazard**

The Board raised the issue of moral hazard on the part of the public accounting firm with the example that auditors may have incentives to behave sub-optimally, from investors' point of view by, not "sufficiently challenging management's estimates or underlying assumptions in order not to disturb the client relationship"...or "seeking to maximize profits and/or minimize costs." The Board also acknowledges that "it is conceivable that, in some situations, moral hazard may take the form of the auditor either influencing the findings or conclusions that the specialists reach or modifying the specialist work after the fact to support the conclusions sought by the auditor."

I would alert the Board, if it has not already been considered in the statement above, that moral hazard may also exist on the part of the specialist due to an awareness of "client relationships" and the motivation to "maximize profit/minimize cost." Since it would likely be financially and logistically prohibitive for each audit team to have its own embedded specialist for each area of specialty, the specialists whether engaged or employed, are expected to be organized separately from the audit teams and, more importantly, have as their "clients", not the audited entity but the audit teams themselves.

Depending on the organizational structure, the specialist team may not be subject to the same consequences as the audit team, should the audit work be concluded to be insufficient and therefore the risk of moral hazard (to maintain client relationships or reduce costs) may be greater at the specialist level than at the auditor level; particularly in the case of the engaged specialist.

Many times I have experienced an audit partner "pushing back" on either scoped effort due to budgetary constraints or specialist conclusions due to concern about his client relationship, the financial reporting deadlines, etc. In most of these cases, the partner-level leadership of the environmental specialist team shared in the potential consequences of poor audit quality and, thus, was appropriately resolute in her position. However, specialists, either engaged or employed, without such visible and engaged senior sponsorship may be influenced to inappropriately adjust their position. Further, a specialist having learned in one engagement





**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter No 044 Auditor's Use of the Work of Specialists and Release No. 2017-002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

what scope or conclusions are not desired by an audit team ("client"), may not propose scopes or put forth conclusions anticipated to be rejected by another audit team ("client") before auditor pressure is even applied.

It appears conceivable that this risk, while present with both employed or engaged auditor specialists, would be greater with an auditor engaged environmental specialist due to the fact that the engaged specialist is unlikely to face the same professional or financial consequences of a poor financial audit (see the related comments on Specialist Qualifications below) and that if multiple specialist companies are engaged, consistency and performance quality trends across the work of any one engaged specialist will be difficult for the audit firm to monitor.

The Board states that moral hazard and poor work quality on the part of the specialist may be, at least partially, alleviated by the specialist perceiving a risk of reputational damage or being subject to codes of conduct, standard, and disciplinary actions in their own profession. I believe this expectation to be more applicable to an employed specialist rather than an engaged specialists as it appears likely, particularly in fiscal years immediately following implementation of the proposed standard, that engaged environmental specialists will represent companies whose services include more traditional environmental consulting services to industry (see related comments in Specialist Qualifications and Specialist Availability below)

Given that I have served with teams that were already conducting work exceeding the current standards and similar to the proposed standard, when these risks for moral hazard were experienced, it is unclear to me how the proposed standards will effectively address this issue, regardless of whether they are aligned with the risk assessment standards or not, unless it is anticipated that specialists will be leveraged to support quality control mechanisms (either internal firm inspections or external PCAOB inspections) to detect or deter suboptimal effort on the part of the specialist.

### **Professional Judgement vs. Professional Judgement**

In the course of performed procedures for environmental liability estimates and AROs for several years, inevitably, we came across instances in which the assumptions of the company's specialists did not appear reasonable to the auditor's specialists but, for varying reasons, the auditor's specialists could not support their conclusions with documentation (i.e. *"If the auditor evaluates the reasonableness of a significant assumption by developing an expectation of that assumption, the auditor should have a reasonable basis for that expectation."*). For example (exaggerated for illustration purposes) a company specialist investigation estimate might include an assumption that a 300-acre industrial site with large areas of historic hazardous materials storage will require the installation of only three monitoring wells to assess the presences of contaminants in groundwater. The auditor's specialist may consider the same site and acknowledge that the theoretical minimum at nearly every site is three wells (the minimum number necessary to assess groundwater flow direction). But the auditor's specialist may further consider that because of the size and history of the assessed site and type of soils reported in the area, that, based on nothing more concrete than direct past experience with similar sites, a reasonable minimum number of wells that will be approved by the regulator is 50.

In these circumstances, where the judgment of the auditor's professional cannot be supported by documentation (any more than that of the company specialist), the audit team response has varied. Some rejected the conclusions of the auditor's specialists because they may have appeared indefensible (no reasonable basis) to the client with whom relations may (or may not) already be difficult while others have pressed management to assemble documentation that better supported the company's assumptions (if possible).



**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter No 044 Auditor's Use of the Work of Specialists and Release No. 2017-002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

In some cases, this decision may have been influenced by the audit team requesting feedback from the auditor's specialist on the magnitude of the potential error. While this seems a reasonable consideration, it seems that it is more common for audit teams to ask this of the auditor's specialist than of management. In practice, this process is difficult and, to a certain extent, risky, for the auditor's specialist as it is not uncommon to have insufficient technical data to independently estimate the difference in costs. In the example above, for instance, without any wells previously drilled into the site subsurface and prior to the assessment of any documentation the company's specialist has to support technical assumptions, there may be no way for the auditor's specialist to anticipate the difficulty of installing the wells, what size and depth of wells will be necessary to withdraw groundwater, what materials the well will need to be constructed with based on the potential contaminants and soil particle size, etc. Given that the auditor's specialist does not have known values for these inputs, the range of the estimate could be so great that the estimate becomes of little use to the audit team. Complicating this assessment, typically, is the fact that the debated estimate may have itself been sampled from the larger site estimate for testing purposes thereby making the cost threshold for determining potential impacts across the estimate and the portfolio even lower.

Similar to the comments above regarding which specialist work can be relied upon, if any, without further assessment, it would be helpful to have more explicit guidance or interpretation on the role of "professional judgement" in the auditor's specialist's work and the level of reliance which can be based upon it (or not) in situations in which the other assessment characteristics (ex. relevant industry or regulatory standards, company's objectives, historical or recent experience of the company, etc.) are absent. Experience performing the procedures proposed has demonstrated to me that this dilemma will arise and guidance in this area could aid in developing consistency in these circumstances.

### **A Risk-based Approach**

With regard to the alignment with estimate assessments to the risk identification and mitigation approaches outlined in AS 2110, though outside of my area of expertise, I would agree, in principal, that audit quality is increased when planning is based on assessed risk of material misstatement. However, in practice, at least as far as environmental liabilities and AROs are concerned, application is challenging.

Most notably, in my observation, is that the risks of material misstatement are often assessed by the audit team long before the involvement of an auditor's environmental specialist. Despite urging from Specialist leader and National Office level professionals, audit teams still involve environmental specialists in the planning phases of the audit only rarely and in the risk assessment, essentially not at all. This can prove problematic due, again, to lack of understanding by the auditor of the complexities of such estimates, and typical environmental management practices driving management's assumptions (including the systemic bias discussed previously and at length in the Appendix) and the communication gaps between the environmental (and occasionally legal) function and the financial reporting function. Each of these contributes significantly to the risks of material misstatements with regard to environmental liabilities and AROs.

"Walk-throughs" performed by the audit team with the audit client often fail to identify these risks as audit teams may not have the basis of knowledge to ask the questions that would illuminate them. Further, even with specialist participation in the walk-through, the team may not have sufficient documentation of site/estimate issues to provide the challenges to management statements during the walk-through that could also cause risks to surface. For this reason, many times, these gaps will not become apparent until the substantive procedures are performed because it is then that the auditor's specialist has access to documentation presenting information contradictory to management's statements.



**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter No 044 Auditor's Use of the Work of Specialists and Release No. 2017-002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

As an example, in response to an auditor's specialist's question regarding the author of a remediation estimate, management responded that the file provided to the specialist and audit team was management's documentation of an estimate originally provided by a third-party (company engaged) specialist. When this third-party document was requested and provided, it demonstrated a total cost 30% greater than that represented in the management buildup. When asked about the discrepancy, the company's environmental management team (employed specialists) responded that they "always marked down their consultant's estimate by 30%" before providing it to the financial reporting function. The company (employed) specialists continued by explaining that this adjustment was made because they understood from experience that the financial reporting function subsequently applied a 30% "contingency" to the estimate as it was received from the company employed environmental specialists before submitting into the financial statements. By "backing down" the estimate before delivery to the accounting office, the environmental specialists were "ensuring that it was right." In theory, it was possible that this practice could have been identified in a "walk-through" exercise but, it had not been previously, and it would have required the audit team to consider that such an unusual practice had the potential to exist. I have experienced many other examples of similar communication gaps and significant unstated assumptions and these characteristics can form the basis for key risks of material misstatement. As noted, these risks may be difficult for the audit team to identify and assess.

In my experience, the audit teams I have supported generally have expressed surprise, upon completion procedures like those proposed, at the level of complexity, uncertainty, and judgement in environmental liability and ARO estimates; despite having performed audit-team procedures in prior years. However, once known, communication of these risks is slow to spread through the practice, even with National Office/Practice sponsorship. In the firms with which I have worked, many audit teams with clients holding such accounts have not used environmental specialists, even in the risk-assessment phase to establish that no other specialist support was necessary. As such, it is conceivable that material misstatements have occurred and will occur, regardless of the approaches proposed here by the Board, in which audits of environmental liability or ARO accounts have been inappropriately de-prioritized ("riskd-away") in the risk assessment phase.

Of the "risk factors" listed (p 94, 2017-002) proposed to be assessed during risk considerations, at least four ("susceptibility to misstatement due to error or fraud," "accounting and reporting complexities associated with disclosures", "exposure to losses in the account," and "possibility of significant contingent liabilities arising from activities reflected in the account or disclosure") represent areas in which it is possible that an audit team may not have sufficient understanding of the risk issues to appropriately prioritize or de-prioritize the account.

### **Evaluating the Qualifications of the Environmental Specialist**

#### *The Company's Specialist*

Current and proposed standards require the auditor to assess the professional qualifications of the company's specialist (employed or engaged). I would offer that, in my experience, while this is a useful and necessary documentation effort, the results of these demonstrate little correlation with the conclusions made in the assessment of environmental liability and ARO estimates (valuation, completeness, obligations, etc.) and are, as such, of limited value in reducing audit risk. This may be due to a variety of reasons. The most significant of these is expected to be the systemic bias discussed previously and the related issue of specialist objectivity discussed below. Environmental liability and decommissioning estimation is typically strongly skewed toward underestimation, regardless of the degree of technical competency and qualifications.



**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter No 044 Auditor's Use of the Work of Specialists and Release No. 2017-002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

However, even in the absence of the issue of underestimation bias, simply identifying an environmental specialist's education, license status, and self-reported summary of experience cannot offer robust documentation of actual experience in environmental remediation or asset retirement activities. Like many other professions, only the general principles of environmental remediation and protection are offered in degree programs. A majority of required knowledge is gained from "in-field" experience and is fundamentally dependent upon time under instruction and the competence and experience of the senior field scientist acting as the instructor. Aside from checking the state licensing bodies (which simply states that a license is or is not current and, in some cases, is or is not in "good standing"), there is no consistent method to corroborate an individual or company's claims of technical competency or experience. Further, the quality of experiences is similarly undeterminable by an audit specialist or even an environmental specialist except in the highly unusual circumstance that the auditor's specialist maintains a relationship with another professional with whom the company's specialist may have worked. A similar challenge might be expected for an engineering professional to document the qualifications of a certain audit team senior manager (for example). At best, the engineer might be able to establish that the auditor holds a CPA license in good standing.

With technical firms, this is true also at the company level. While public accounting firm quality could potentially be assessed from PCAOB and SEC data, reports, and communications, the regulators for environmental response do not produce similarly public assessments and any "reputational" considerations made by audit teams or their specialists are commonly limited to characteristics like an engineering company's sales relative to another (See Engineering News Records top firms), self-reports of industry awards, or checks to determine if the specialist has been black-listed to perform work for federal entities. In some cases, particularly under the current requirements for non-fair-value estimates, these indirect reflections of competence could be leveraged to imply greater confidence in the specialist qualifications than might otherwise be possible and to avoid or diminish the performance of other procedures (see the discussion at Moral Hazard).

The qualifications and objectivity (see discussion below) assessments of company environmental specialists may have little impact in reducing the risk of using the estimates of company specialists. The Board may wish to consider, based on this perspective, if further clarification of, or elaboration on, the proposed requirements is prudent or necessary.

*The Auditor's Specialist*

A risk exists related to qualifications for the use of an auditor's engaged specialist as well; however the qualifications desired will include not only remediation/decommissioning experience but also an at least rudimentary set of financial auditing/accounting qualifications, as well. Specialist companies providing both qualifications are expected to be extremely limited (see Environmental Specialist Availability discussed below).

Additionally, keeping in mind that the sources used to establish an auditor's engaged specialists qualifications will typically be the same as those for the company's specialists, even though these sources only address the specialist's environmental technical qualifications. It is noteworthy that none of these sources will be impacted by or will be expected to report upon (or even follow) the quality of audit procedures performed (or not performed) by the auditor's engaged specialist. Perhaps in extreme cases, the auditors could make formal complaints to the licensing bodies (if any) of the engaged specialist but as such bodies are governing activities other than audit (ex. engineering, geology), the complaints of the audit client may not trigger censure from the licensing body as it may conclude that it has no authority to do so in some cases. As such, the Board's



**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter  
No 044 Auditor's Use of the Work of Specialists and Release No. 2017-  
002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

hypothesis that moral hazard and poor work quality on the part of the auditor's engaged specialist may be, at least partially, alleviated by the specialist perceiving a risk of reputational damage or being subject to codes of conduct, standard, and disciplinary actions in their own profession is not, yet, particularly convincing.

This issue could be expected to also apply to the company that employs the individual environmental specialist as it is anticipated (discussed further below) that most companies employing such specialists will continue, at least in the short term, to derive more revenue from industrial clients than audit clients. As such the reputations of these companies will be reflected more in the engineering and technical venues in which the audit company (and certainly any individual audit team) holds little influence. Perhaps it will be the intention of the Board, in the performance of its regular inspection duties, to highlight specialist companies who, in the course of providing audit support work, performed sub-optimally but it is unclear how much authority, if any, the Board will have to apply sanctions for poor specialist company performance. Moreover, and perhaps more important for audit team planning purposes, there does not appear to be a mechanism by which the Board can present the specialist companies supporting inspected audits that were determined to have performed adequately.



**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter  
No 044 Auditor's Use of the Work of Specialists and Release No. 2017-  
002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

**Evaluating the Objectivity of the Engaged Environmental Specialist**

AS 1210 and the current proposals require that the auditor perform certain procedures when using the work of a company's specialist including evaluating the relationship of the specialist to the company, including circumstances that might impair the specialist's objectivity. As discussed previously, there is a very common, and I believe highly systemic, bias for underestimation of environmental liability and ARO estimates. However, beyond that, the issue of objectivity of an engaged environmental specialist (both the company's and the auditor's) may be problematic.

This conclusion is based upon the consideration that, with limited exceptions, the firms providing environmental remediation or decommissioning estimates are the same firms providing environmental remediation and decommissioning services, commonly with greater resulting gross revenue than the estimate development itself. In fact, in the most common case, the company's estimate is from a bid/ proposal to perform the services. Even where it is not, it is highly uncommon (in the 200+ estimates audited, I have observed less than four cases, each with very special circumstances) that the consultant providing the estimate for financial reporting purposes was not the provider selected for performing the services.

This is not necessarily a negative point as it would actually arouse some skepticism if the company maintained an estimate by one provider but was having the work provided by another. In this case, it could be conceivable that the company was inflating the estimate by using a more expensive provider and reserving any saved actual costs as a "cookie jar." However, it does result in a fact pattern in which the engaged specialist's company has an incentive to please the industrial client in order to win more work in the future. This risk would apply also to the auditor's engaged specialist. For instance, if "Environmental Engineering Company ABC" is contracted to provide 100 hours to an audit team but, the same or another team in ABC is delivering, or has the potential to deliver, on 10,000 hours of work on a contaminated site for the financial reporter being audited, the engaged ABC audit specialist could experience significant implicit or explicit pressure to perform sub-optimally on the financial audit (related to the Moral Hazard discussion above).

For this reason, like the assessments of specialist qualifications discussed above, it has been my experience that the audit exercises to assess objectivity are necessary from a documentation perspective but they are of limited value in reducing audit risk. Conversely, as discussed with the specialist qualification assessment, in some cases, these documentation procedures could be leveraged to imply greater confidence in the specialist's objectivity than might otherwise be possible and to avoid or diminish the performance of other procedures (see the discussion at Moral Hazard).

**Environmental Specialist Availability**

Regarding the potential for other unforeseen impacts, I would suggest to the Board that it is conceivable that audit delays and increased effort or costs (beyond those identified by the Board) could be experienced by audit teams finding it necessary in the first year, and perhaps subsequently, to leverage an auditor-employed or engaged environmental specialist and finding that the resources are severely constrained. For reasons discussed in these comments, and for some others, the firms with which I was employed struggled to attract and retain talent to provide audit support services. The employed resources that are present, generally, are not maintained at levels that exceed the current need, for obvious reasons. A surge in demand in the first audit season (or more) could result in delays as audit teams must wait on the same small-number resources to cycle through their work on separate engagements or the expenditure of additional time and costs to locate resources outside the firm (engaged specialists), potentially at a premium.





**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter  
No 044 Auditor's Use of the Work of Specialists and Release No. 2017-  
002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

In regard to environmental liabilities particularly, delays in starting procedures could prove problematic. I have observed that most companies, for reasons I won't detail here, do not prepare their annual liability estimate updates until well after the end of the third quarter. Even in a 'normal' audit season of repeat engagements, the environmental specialists are typically heavily leveraged from approximately October to March since, because of these company practices, it is often not possible to "pull the work forward." Waiting for resources, identified to be necessary, to become available could easily push audit teams up against their and their clients' reporting deadlines. To further exacerbate this issue, it is not uncommon to find in the first year performing procedures on environmental liability and ARO estimates like those the Board has proposed, that the estimate documentation prepared and provided by the company is insufficient, and in some cases, severely insufficient, to support management's assertions. Multiple rounds of document requests and estimate revisions have been observed in audits of environmental liabilities and AROs subjected to the first year of substantive procedures.

A similar shortage of resources is possible with external environmental specialists capable (and determined appropriate) to be engaged by the firm due to the objectivity concerns outlined above and the general lack of environmental specialists with a knowledge of the relevant accounting guidance and financial audit theory and practice. I would anticipate that most audit firms would at least prefer to prepare some standard contracts and, perhaps, master service agreements with specialist companies to manage consistency and costs in the contracting of engaged environmental specialists with whom they may not have previously worked. As this could be expected to require that the audit practice leadership understand how many teams may need support, which the teams themselves may not know until year-end planning in the 3<sup>rd</sup> quarter, this effort may also introduce a delay in securing resources. Audit firms lagging in entering the marketplace to secure resources may find they are no longer available. In all of the possible scenarios described above, what does the Board consider the appropriate response for an audit team that has identified that the assistance of a employed or engaged specialist is necessary but find that such assistance is unavailable?



**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter No 044 Auditor's Use of the Work of Specialists and Release No. 2017-002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

## APPENDIX

### **Background – Potential Historical Contributions to Observed Bias in Environmental Response Costs**

In my experience, first as an environmental remediation consulting, providing environmental remediation estimates for corporate clients, and then as an audit environmental specialist, bias in the development of environmental liability estimates and ARO estimates is systemic and heavily skewed to underestimation.

It is my belief that this results from many aspects of the history of environmental response in the U.S. The first legislation addressing preventing and cleaning up contamination (RCRA) was passed in 1976 immediately following the recession of the mid-1970s. It can be expected that few in industry welcomed the additional overhead costs related to environmental response. Subsequently, CERCLA ("Superfund") was passed in 1980. CERCLA imposed strict liability for environmental contamination at abandoned hazardous waste sites. Companies that had divested or abandoned facilities long before may have suddenly found themselves liable for expensive responses and facing the regulatory authority of a young agency, the USEPA. Under CERCLA, the relationship between industry and regulatory agency quickly evolved into an antagonistic, and oftentimes bitter, one. Additionally, complex and expensive legal battles played out over sites for which multiple parties were held liable.

Early in the Superfund timeline, the nascent environmental response "industry" may have found itself employed equally by USEPA and industrial respondents. However, as time passed and the Agency transitioned to having the responding parties perform the remedies, environmental consultants were more commonly hired by private industry and strongly influenced by client internal or external legal functions. In the nearly 40 years since CERCLA was passed, the role of the environmental engineering consultant hired by the respondent, has become one where the environmental consultant is largely the company's advocate defending the company against the requirements of the regulator or the claims of another respondent. Similarly, the role of the USEPA (and the state agencies to which it grants authority) has matured into one in which the agency is responsible for detecting and refusing sub-effective response actions; not unlike other regulator-regulated relationships.

My professional career started at an environmental consulting firm that enjoyed a good reputation in the site investigation and remediation industry for quality work. Notwithstanding this, I was coached, as was all new staff, on how to present the industrial client's site in the best light in submitted reports; how to design an investigation that most strategically limited the scope just within the bounds of professional ethics; and how to advocate for the lowest-cost remedy reasonably anticipated to "get by" the regulator or counterparty. In short, we were coached rigorously to assume the client's objectives and priorities as our own.

Even with this commitment to provide the lowest costs possible to the client, it was (and is) not uncommon for clients, upon receiving a proposal estimate, to "shop" it with other consultants to get an even better price. Engineering/technical staff was thus coached to provide estimates low in detail, highly caveated, and unrealistically limited in cost and scope to "buy the work" or "get our foot in the door."

While this culture does result in the most competitive prices for industry, over many years of focusing on cost cutting and estimating at the low end of the range with little interest in "realistic" or "reasonable" estimates (much less "best" estimates), environmental remediation and decommissioning professionals find it difficult, in my observation, to divest themselves of this underestimation bias when it becomes necessary for them to do





**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter No 044 Auditor's Use of the Work of Specialists and Release No. 2017-002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

so. On the other side, the culture in environmental departments at industrial clients (who may themselves come from consulting backgrounds), ever more squeezed by “lean” initiatives and budgetary constraints and focus on market performance, also are not highly incentivized to challenge their consultant’s estimates. In my observations, only an exceptionally small percentage of company environmental remediation managers have received formal training on the estimation and accounting rules relevant to their estimates, and even among those, company employed specialists and architects of internal controls often experience difficulty in identifying and mitigating the underestimation bias.

**Background – “Typical” Environmental Clean-Up Progression at an Operating Site**

1. A release is observed or strongly suspected to have occurred.
2. Emergency control and removal may be performed by site (Company) personnel or a contractor may be employed to perform emergency response.
3. Company evaluates if the release is of sufficient significance (volume/risk per the relevant law) to inform the environmental regulatory agency of the release.
4. If it is, the agency may require investigation of the release and remediation of any impacts exceeding those allowed by law.
5. The Company enters into a certain regulatory path depending on site and release circumstances.
6. The Company engages an environmental engineering contractor to investigate and, potentially remediate, contamination resulting from the release.
7. Commonly, but not always, the Company environmental consultant will be directed to collect “preliminary” or “screening” samples of media (soil, groundwater, surface water, sediment, etc.) that may be impacted by the release to help inform the size of the investigation area. **With Company input**, the environmental investigator will select both the sample locations and the contaminants for which to analyze the samples. The sample collector will also collect related data with the media samples including geological data at the soil/groundwater sampling point (ex. soil composition, layers, color, particle size, depth to groundwater, screening level of volatile organic chemicals using an appropriately-calibrated meter, water temperature, water hardness, water salinity, water turbidity, etc.) or sediment/surface water sampling point (sediment depth, sediment characteristics including particle size, presence/absence of sediment organisms, surface water depth, temperature, hardness, clarity/turbidity, etc.) These samples are then delivered to a laboratory for analysis. In most cases, but not all, the laboratory is a subcontractor independent from that which collected the field samples. The locations of the samples are typically surveyed by yet another independent contractor.
8. Once the data is received from the laboratory and the surveyor, the environmental investigator plots the contamination against as-built engineering drawings of the site. Further information may be collected or deducted by the environmental investigator related to the potential transport of contaminants including, but not limited to, groundwater flow direction, typical wind speed and direction, presence of nearby (onsite or offsite) “receptors” (human or ecological) to contaminants (ex. schools, residences, creeks, rivers, wetlands, endangered species, on-site workers, etc.), presence of nearby groundwater wells, presence of nearby potential contaminant sources (waste ponds, injection wells), etc. This information, combined with the analytical results from the samples are used to inform the potential exposure “risk” presented by contaminants released at the site.
9. Based on the results, the Company, through its environmental consultant, recommends a course of action to the environmental regulatory agency: either a request for closure of the incident or remediation with, or without, further investigation.
10. If further investigation/remediation is warranted, the Company, through its environmental consultant, will formally (investigation or remediation plan) or informally (email, conversations, etc.), depending upon the regulatory track in which the response is progressing, present an investigation plan to the regulators. In the

---

<sup>1</sup> The reader is encouraged to understand that there exists a large degree of variability in remedial progression at any given site. This description is only intended to present the most commonly observed processes across various sites and regulatory regimes. Many exceptions to this process can be observed.



**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter No 044 Auditor's Use of the Work of Specialists and Release No. 2017-002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

example where further sampling is deemed to be required, upon agency approval, the Company, again through its environmental consultant, will repeat the sampling process, laboratory analysis, survey, and drafting effort. This is typically an iterative process and will continue until the agency concludes that the full extent of contamination above regulatory limits for each media is identified (surface area, depth, and contaminant concentration). Throughout this process the **Company may influence** the progression of the investigation, including the selection of sampling locations, contaminants to be assessed, etc. typically with the goal of reducing the scope to the minimum that will be considered acceptable to the regulatory agency. Once the data is collected, it may be formally reported in an investigation report. **The draft of this report is subject to Company input** before it is submitted to the regulator. The final draft is then presented to the agency for agency comments and subsequently revised to address these comments. In some cases, further sampling may be required by the regulator and this process repeats until the investigation is approved.

11. Once the regulator has approved the investigation results or report, the Company, through its environmental consultant, will consider the remedial alternatives available to meet the requirements of law. In some regulatory regimes these requirements will be prescriptive. That is to say that a certain acceptable numerical value has been established for each contaminant of concern in each media (ex. amount of benzene in groundwater) and a remedy proposed by a Company must remediate each of the media that are impacted above its regulatory limits regardless of whether an exposure risk exists. In others, a "risk-based" approach has been adopted in which only those contaminated media which are considered to have a "complete exposure pathway" to a receptor (human or ecological) must be remediated to their contamination limits. Again, **these evaluations are performed by the Company's environmental consultant acting as the Company's advocate**. The consultant will then draft a list of alternatives (typically in a report) that it proposes will meet the requirements under law and will specifically recommend to the agency, a desired remedial alternative (commonly the most cost efficient remedy) expected to meet the legal requirements. **The draft of this report is typically reviewed by the Company prior to submittal** to the agency.
12. Upon receipt of the remediation recommendations, the agency reviews the conclusions based on the data and may either accept the report and its recommendations, or return it with comments (including requirements for further investigation, in some cases). Acceptance of the recommendations typically constitutes authority for the Company to plan and implement the remedial alternative it recommended.
13. In some cases, the remediation recommendations communicated to the agency may contain sufficient information to implement the remedy without further study. In other cases, additional data may need to be collected to design the remedy or draft an implementation plan. This could include the further collection and analysis of samples (ex. for contaminants, soil strength, groundwater mapping/flow etc.) or planning data (location of a waste disposal site, etc.) Again, these samples may include the use of various subcontractors to collect and analyze data. If the refinement of a remedial plan was required, typically, the **results will be subject to another round of comment and approval first by the Company** and then by the regulator.
14. Typically, remediation includes one or a combination of different types of activities:
  - a. **Restrictions:** institutional or engineering methods to interrupt otherwise complete, or potentially complete, exposure pathways. Examples of the former include a restriction on property usage or a restriction to use of groundwater in contaminated areas. Examples of the latter may include fencing to keep receptors away from contaminated areas). Controls must remain in place until the exposure risk is otherwise removed.
  - b. **Construction of components of a remedy:** activities which involve earthmoving, construction of structures, physical activities to deliver soil or groundwater treatments, or installation of equipment required for remedial activities. These can include digging contaminated soil and moving it to a disposal point, injecting treatment chemicals into the soil or groundwater, building a water treatment plant, and many more. Relative to other efforts, construction activities tend to be short-lived events.
  - c. **Operation, maintenance, and monitoring (OM&M):** In many sites, the risk presented by the contamination must be monitored to insure that it is controlled by the selected remedy. Where a remedy construction has occurred, the systems may require operation and maintenance. In many cases, OM&M may continue for very long periods of time. Over the course of the OM&M period, the environmental consultant typically submits, on behalf of the Company, on routine report on



**Comments to : PCAOB Release No. 2017-003/Rulemaking Docket Matter  
No 044 Auditor's Use of the Work of Specialists and Release No. 2017-  
002/Rulemaking Docket Matter No. 043 Auditing Accounting Estimates**

the site conditions. **These reports are subject to review and approval first by the Company** and then by the agency. The agency is tasked with reviewing the data to ensure that the remedy continues to function as intended and is appropriately controlling the risk to human health or the environment. If the monitoring data fails to support that the remedy is protective, the agency would be expected to require that the Company perform additional procedures (or new remedies) to control exposure at the site.



August 30, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, DC 20006-2803

**RE: PCAOB Rulemaking Docket Matter No. 043**

Dear Madam Secretary:

We appreciate the opportunity to comment on the Public Company Accounting Oversight Board's ("PCAOB" or "Board") Proposed Auditing Standard – *Auditing Accounting Estimates, Including Fair Value Measurements* (the "proposed standard") – and proposed amendments to PCAOB auditing standards included in PCAOB Release No. 2017-002 (the "release"). We commend the Board and its staff for its work to build on the feedback received on its August 2014 staff consultation paper and move forward with a standard-setting proposal.

**Overview**

The release outlines the PCAOB's three main reasons to improve standards for the auditing of accounting estimates, including fair value measurements. Our perspectives on each of these reasons, and related matters for the PCAOB to consider in finalizing the proposal, are summarized below.

***Eliminating differences among the three existing estimates standards***

We support the PCAOB's approach to developing a single more uniform principles-based standard to address the auditing of accounting estimates, including fair value measurements. We concur with the PCAOB's decision to retain the three approaches to testing estimates that are used today and allow the auditor to tailor the audit approach based on the most effective means of obtaining sufficient appropriate audit evidence depending on the specific underlying risks of material misstatement.

As is the case with many existing PCAOB standards, the proposed standard will call for firms to develop and maintain specialized guidance and tools to facilitate and promote a tailored application to particular estimates. Specifically, we envision a need for firms to continue to develop and maintain guidance to help auditors address the auditing of existing and new financial reporting requirements (e.g., the new standards addressing revenue from contracts with customers and allowances for credit losses) as well as continually evolving business transactions and arrangements in which accounting estimates are prevalent and significant. Guidance will also continue to be needed to address areas of significant auditor judgment, including how the auditor's approach to testing management's process might differ if a risk is assessed as a significant risk. The PCAOB may find it necessary over time to take additional steps to promote consistency in practice if concerns arise over the effectiveness of diverse approaches developed by individual firms.



***Updating requirements in auditing standards in light of prevalence of the use of third-party pricing sources and other developments***

Current PCAOB standards are largely focused on using information produced by the company. A number of steps taken by the PCAOB in the proposal appropriately acknowledge the growing use of information from third parties by companies and auditors. The proposed requirement in paragraph .20 of the proposed standard, together with Appendix A, appropriately recognizes the importance of information provided from third-party sources, such as pricing services and brokers or dealers, as inputs used by management in its estimation process or by the auditor for the purpose of developing an independent expectation.

***Specifically addressing the application of professional skepticism and responding to potential management bias***

Any new standard should support the performance of appropriate, scalable auditing procedures, including reinforcing professional skepticism and appropriate evaluation of the audit evidence. The PCAOB's approach to align the proposed standard with existing requirements in the risk assessment standards as well as AS 2810, *Evaluating Audit Results*, is a helpful way to reinforce the concept of professional skepticism and the need for auditors to consider potential management bias throughout the audit. We believe the enhanced focus on data and significant assumptions, including the requirement in paragraph .16a for the auditor to consider whether management has a reasonable basis for its judgments, are appropriate ways to prompt auditors to devote attention to addressing potential management bias in accounting estimates. However, we are concerned with how certain requirements have been articulated in the proposed standard, which is explained in more detail below.

In summary, we support the PCAOB's objective to strengthen the auditing of accounting estimates. With some changes, the proposal could help to accomplish this objective. In many areas, the proposal will better align standards with current practices, which may promote more consistency in practice and enhance audit quality. We believe much of the current proposal is generally consistent with how we as a firm approach the auditing of accounting estimates today, although initial implementation considerations and our limited outreach to engagement teams have identified areas in which further guidance in the proposed standard would be helpful to clarify the PCAOB's expectations.

In this letter, we have included certain suggestions related to some of the specific requirements described in, or implied by, the proposed standard to address what we see as potential practical challenges or areas where additional clarification would be helpful. We have organized our observations and recommendations into the following topical areas:

- Valuation of investments based on investee financial condition or operating results
- Third-party pricing sources
- Other concerns and potential areas for clarification
- Other matters

**I. Valuation of investments based on investee financial condition or operating results**

Proposed Appendix A to Auditing Standard 1105, *Audit Evidence*, describes the auditor's responsibilities for obtaining sufficient appropriate audit evidence in certain situations in which the valuation of an investment selected for testing is based on the investee's financial condition or operating results. This



material builds upon paragraphs .28–.34 and .56–.57 of AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*. The release states that the proposed amendments are intended to better align the required procedures to evaluate evidence obtained regarding the valuation of investments based on the investee’s financial condition or operating results with the risk assessment standards.

These requirements would apply to a number of circumstances, including certain investments accounted for by the equity method and investments accounted for by the cost method for which there is a risk of material misstatement regarding impairment. The requirements would also apply to investments measured at fair value for which the investee’s financial condition or operating results are a significant input into the fair value determination (for example, when the fair value of an investment is based on revenue or earnings multiple derived from the financial statements of a company). Significant assumptions used in the valuation of certain assets may not necessarily be (entirely) derived from financial statements. In some cases, key assumptions may be derived from information underlying the financial statements or may be based on other financial or non-financial information. Given the different circumstances, we believe it is important for auditing standards to direct auditors to consider the nature of the applicable accounting requirements and the evidence likely to be available to support the valuation. It is also necessary for auditors to obtain an understanding of management’s process and controls over the recording of amounts in the financial statements related to its investment. These matters should then be taken into account in designing procedures that appropriately respond to the assessed risks of material misstatement. The auditor’s focus in obtaining evidence should be on considering the relevance and reliability of information used as inputs to a valuation, including any controls relevant to this information. Audited financial statements can represent relevant and persuasive evidence when available, but are not the only source of potential evidence that auditors may obtain in relation to valuations.

In light of these views, we support the proposed language in paragraph .A1 of Appendix A that sets out a risk-based approach. However, we believe the requirements that follow are written in a manner that is overly prescriptive and would diminish the application of sound risk-based judgment. In our view, the requirements as drafted may be impracticable or impossible to implement.

***The expected procedures if the investee’s audited financial statements are significant to the valuation of the company’s investment (paragraph .A4 of Appendix A)***

We believe the PCAOB’s intent in paragraph .A4 is to set out expectations in cases when the investee’s audited financial statements – or information derived therefrom – are a significant input into the valuation (i.e., akin to data). The requirements appear to be premised on the assumptions that information used by management in the valuation is always derived directly from audited financial statements (without adjustment) and these audited financial statements will be available on a timely basis. If audited financial statements are available and are significant to the valuation of the company’s investment, paragraph .A4 of the proposal would require the auditor to determine whether the audit of the investee provides sufficient appropriate audit evidence by performing certain procedures. Requiring the auditor to obtain information about the procedures the investee’s auditor performed and the results thereof, or to review the audit documentation of the investee’s auditor, may not be possible. In certain cases, the investee’s auditor will not be under any obligation to provide information about the procedures the investee’s auditor performed or provide access to audit documentation and may have little incentive to do so (e.g., given concerns over potentially creating liability for the investee or the auditor). We encourage the Board to consider replacing paragraph .A4b with an acknowledgment that, in some instances, obtaining this access may not be necessary or possible and, if this is the case, the auditor should focus





efforts on the consideration of the processes and controls management has in place over the underlying information.

***The expected procedures if the investee's financial statements are not audited or the audited financial statements do not provide sufficient appropriate audit evidence (paragraph .A5 of Appendix A)***

If audited financial statements are not available or do not provide sufficient appropriate audit evidence, the expectation in the proposal is that the auditor will have access to investee management and be able to perform additional audit procedures or arrange for the investee's auditor to perform additional procedures. We have a significant concern that these requirements as drafted will create practical challenges in implementation.

For many noncontrolling investments, company management may not always have direct access to investee management to arrange for the company's auditor to perform the proposed procedures, and in many cases the company or the company's auditor may not be entitled to such information pursuant to the terms of the investment arrangement. We have a similar concern in relation to the proposed requirement in paragraph .A3b for the company's auditor to make inquiries of the investee regarding subsequent events, as often the company's auditor does not have direct access to investee management.

As noted in describing our concern with the proposed additional procedures when audited financial statements are available, it may not be possible for the company's auditor to compel an investee's auditor to perform additional procedures given the lack of a relationship between the two. As drafted, the requirements in paragraphs .A4 and .A5 would result in an approach similar to situations that involve the auditor's supervision of other auditors, which may not be appropriate in certain circumstances.

***Application of paragraph .A4***

The note to paragraph .A4 of Appendix A proposes an exception to the requirements of that paragraph for audits of investment companies in relation to obtaining information about the audit of the investee fund or reviewing audit documentation if the investee fund's audited financial statements are significant to the valuation of the investee fund presented by the investment company. We believe in such circumstances the auditor should understand and assess the processes and controls that management of the investor fund has in place, including their initial and ongoing due diligence. It is unclear whether the PCAOB intends additional audit effort through its requirement in the note to paragraph .A4 that requires the auditor to "test" the investment company's procedures. We also suggest the PCAOB consider whether additional exceptions should be permitted for other circumstances in which auditors cannot obtain access to the investee auditor or related audit documentation to overcome the practical limitation in applying paragraph .A4 in such circumstances. For example, we observe that the practical expedient set out in ASC 820, *Fair Value Measurement*, Paragraph 10-35-50, applies more broadly than to investment companies.

***The potential presumption that audits of investees must be conducted under PCAOB standards***

Paragraph .A2 of Appendix A would require the auditor to read available financial statements of the investee to obtain an understanding of whether the report of the investee's auditor indicates that the audit was performed under PCAOB standards and expressed an unqualified opinion. There are often situations when the financial statements of investees are audited under other auditing standards (for example,



AICPA or IAASB standards). We do not believe the PCAOB intended to suggest that financial statements not audited in accordance with PCAOB standards would be unacceptable when valuation of an investment is based on the investee's financial condition or operating results. Use of different standards could be a factor to consider in evaluating the relevance and reliability of the audited financial statements, although we believe it would be helpful for the PCAOB to discuss the risk it is intending to address through this requirement.

## **II. Third-party pricing sources**

We support the inclusion of guidance addressing the use of pricing information from third parties as audit evidence. With respect to the overarching requirement in paragraph .A2 of the Appendix to proposed AS 2501, we question whether use of the word “tests” is appropriate in relation to pricing information provided by a third party used by management, as we believe it may be inconsistent with other requirements in the proposed standard. For example, the proposed requirements in paragraphs .A4–.A5 focus on relevance and reliability of pricing information in a manner similar to the proposed requirement in paragraph .13 that addresses the use of data from an external source and links to AS 1105. In addition, the release notes that the procedures in Appendix A apply to pricing information obtained from pricing sources used by management in their estimation process as well as from those obtained by the auditor for the purpose of developing an independent expectation.<sup>1</sup> The PCAOB should clarify whether the use of the word “tests” in paragraph .A2 is intended to set out a different work effort than what would be required by AS 1105 to evaluate information from external sources.

The release specifically notes that “like the existing estimates standards, the proposed standard does not require audit procedures to be applied to each individual financial instrument.”<sup>2</sup> We believe this approach appropriately recognizes the manner in which information is typically received from pricing sources and how current practice takes this into account. We agree this approach focuses on assessing the relevance and reliability of the pricing information obtained and is better aligned with the auditor's assessment of risk. We suggest the following note to clarify paragraph .A4:

Note: The procedures in paragraphs .A4–.A8 are not required to be applied to each individual financial instrument.

We support a risk-based approach to considering the nature and extent of procedures necessary to assess the relevance and reliability of evidence provided by third-party pricing sources. We find the factors in paragraph .A4 particularly useful in demonstrating the variability of third-party pricing sources and agree with the PCAOB's views in the release that the reliability of this information may differ, including the difference between pricing services and brokers or dealers. We agree it is useful for auditors to consider the factors outlined in paragraph .A5 of the proposed standard in considering the relevance of pricing information.

Paragraph .A4 of the proposed standard highlights that a consideration for the auditor in evaluating the reliability of pricing information is whether the pricing service has a relationship with management by which management has the ability to directly or indirectly control or significantly influence the pricing service. In practice, management may on a routine basis provide its specific trade activity back to the pricing service and may routinely challenge the pricing service's prices. We do not believe the PCAOB

---

<sup>1</sup> See page A3-34 of the release.

<sup>2</sup> See page A3-34 of the release.





would view this as a means of significantly influencing the pricing service. We believe the practices we have observed are not indicative of management exerting control or significant influence over a pricing service. We believe the PCAOB should give further consideration to the specific risks that are intended to be addressed through this requirement and reconsider its necessity. In addition, while we believe the experience and expertise of the pricing service should be taken into account, the proposed requirement in paragraph .A4 should not imply that a pricing service that does not have lengthy experience pricing a particular instrument could not provide relevant and reliable information to be used as audit evidence. This is because a pricing source may have experience with pricing similar instruments and may have a robust process for doing so, which could make it a relevant and reliable source.

### **III. Other concerns and potential areas for clarification**

The following represent areas where we are unclear about the intent of certain requirements and have concerns about the potential implications of the proposal, as well as areas where we believe clarifications to the proposed standard would be helpful to support its effective implementation.

#### ***Retrospective reviews***

We note the PCAOB's proposal to amend AS 2401, *Consideration of Fraud in a Financial Statement Audit*, to clarify the auditor's responsibilities when performing a retrospective review of accounting estimates and align them with the requirements in the proposed standard. It would be helpful for the PCAOB to clarify whether its intent in proposing new paragraph .60A in AS 2110, *Identifying and Assessing Risks of Material Misstatement*, was to provide explanation of the concept of "significant accounting estimates."

Previously, a retrospective review was required for "significant accounting estimates," which paragraph .64 of AS 2401 notes should include those that are based on highly sensitive assumptions or are otherwise significantly affected by judgments made by management. We are of the view that changing the requirement to "the accounting estimates in significant accounts and disclosures" could then require a retrospective review to be performed for many more estimates when the estimation risk may be much more straightforward. We believe it is appropriate to continue to limit the requirement to perform retrospective reviews to a subset of accounting estimates, for example those that have high estimation uncertainty, and believe the proposal should include language that affirms this point.

#### ***Significant assumptions***

We appreciate the focus on significant assumptions, as well as the factors relevant to identifying significant assumptions in paragraph .15 of the proposed standard. These factors are generally consistent with how we evaluate significant assumptions today but could help to promote broader consistency in practice. However, paragraph .15e of the proposed standard on its own could inappropriately result in auditors determining that all assumptions underlying an estimate are significant. We recommend the Board include a note to paragraph .15 of the proposed standard that describes how the factors work together to aid the auditor in understanding the assumptions and determining which are significant to the estimate. We offer the following as a suggestion:

Note: An accounting estimate may be based upon numerous individual and specific assumptions that will vary with the characteristics of the item being measured and the method used by the company in developing the accounting estimate. Not all assumptions



may be significant assumptions; rather, the auditor's consideration of these factors in identifying significant assumptions should take into account the assessed risks of material misstatement.

The note to paragraph .15 states that the auditor's identification of significant assumptions should include any assumptions the company has identified as significant assumptions used in an accounting estimate. Generally, management's processes and controls are designed to operate at a greater level of precision than the auditor's materiality and testing thresholds given their responsibilities for maintaining books and records and systems of internal accounting controls. Due to this difference, it is possible the auditor's conclusion as to which assumptions are significant could differ from management's. If the auditor is able to determine that an assumption is not significant (based on the factors provided in paragraph .15), the auditor should not be required to identify the assumption as significant solely because management did. As such, we recommend that the PCAOB remove this note from the proposed standard.

Finally, we note the requirement in paragraph .18 for auditors to obtain an understanding of how management has analyzed the sensitivity of its significant assumptions for critical accounting estimates. We agree this understanding could provide useful information about the efficacy of management's process, but the requirement may not always apply. For example, management may assert it is unable to analyze the sensitivity of some assumptions to change or may only do an analysis in the aggregate, which in our view does not provide meaningful information. As such, we are concerned that the proposed requirement may place undue emphasis on this particular management discussion and analysis (MD&A) disclosure, and believe the other requirements in paragraphs .16–.17 sufficiently address the auditor's considerations in relation to significant assumptions. If the PCAOB decides to retain the proposed requirement, clarification will be necessary to highlight that the intent is for the auditor to understand whether and, if so, how management analyzed the sensitivity of its significant assumptions to change. We believe the PCAOB should also explicitly acknowledge that considering information included in MD&A in accordance with the proposed standard does not change the auditor's responsibilities for this information in accordance with AS 2710, *Other Information in Documents Containing Audited Financial Statements*, (i.e., the new requirement is not intended to create new auditor responsibilities related to management's MD&A disclosures).

### ***Increased auditor focus on bias***

We agree that the consideration of potential management bias, and whether such bias results in a material misstatement, is an essential component of the auditor's evaluation of accounting estimates. We support many of the proposed requirements that focus auditors on their obligations to exercise professional skepticism and to identify management bias when evaluating audit results, including the proposed amendment to AS 2110 to require key engagement team members to discuss how the financial statements could be manipulated through management bias. We also support recasting certain existing requirements using more neutral terminology. However, the phrase "free from bias that results in a material misstatement" in the objective in paragraph .03 and the requirement in paragraph .09 of the proposed



standard could suggest a broader obligation than what is required. A more straightforward focus in the objective would more closely align with AS 2810. We suggest the following:

- .03 The objective of the auditor is to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, including whether accounting estimates:
  - (a) have been accounted for and disclosed in conformity with the applicable financial reporting framework; and
  - (b) are not materially misstated as a result of bias ~~free from bias that results in material misstatement.~~

We also recommend that the PCAOB consider similar changes to paragraph .09 of the proposed standard.

### ***Contradictory evidence***

The auditor applies the requirements of AS 1105 for purposes of designing and performing audit procedures to obtain sufficient appropriate audit evidence. Paragraph .02 of AS 1105 states audit evidence consists of both information that supports and corroborates management's assertions regarding the financial statements or internal control over financial reporting and information that contradicts such assertions. In executing the audit, the auditor considers evidence obtained in other areas of the audit that may contradict evidence provided by the company to support an accounting estimate. This includes situations where the auditor has chosen to develop an independent expectation of an accounting estimate. Regardless of the nature of planned audit procedures, the auditor understands management's process for developing the accounting estimate and considers whether the auditor is aware of potentially contradictory audit evidence, either related to the estimate or from evidence obtained elsewhere in the audit. We recommend that the Board update the proposed standard to include the requirement in paragraph .02 of AS 1105. This would help clarify how an auditor should approach evaluating audit evidence obtained to determine if it corroborates or contradicts management's conclusions about the reasonableness of accounting estimates.

### ***Developing an independent expectation of the estimate***

We agree with the PCAOB's view that the auditor's understanding of the process the company used to develop the estimate, and the result of tests of relevant controls, should necessarily inform the auditor's decisions about the approach to take to auditing an estimate. The PCAOB should make clear, when developing an independent expectation of an estimate, the auditor's testing of management's process is limited to those areas on which the auditor intends to rely for purposes of developing the expectation. Said differently, if an auditor intends to use the same data or some of the significant assumptions used by management in its valuation, the auditor would need to test the data and certain assumptions. On the other hand, if the auditor is using a proprietary model to develop the independent expectation, the auditor would need to understand, but not necessarily evaluate, the company's method, since the auditor would be required to have a reasonable basis for the method used to develop the independent expectation in accordance with paragraph .22 of the proposed standard.

### ***Company's use of a specialist***

Paragraph .19 of the proposed standard incorporates elements of PCAOB Release No. 2017-003, in particular proposed Appendix B to AS 1105. Specifically, the requirement in paragraph .19 refers to



“testing and evaluating the company specialist’s work in conjunction with testing the company’s process.” We suggest that proposed AS 2502 be expanded to more closely mirror the underlying requirements in paragraphs .B6 and .B8 of proposed Appendix B to AS 1105, which differentiate between (1) testing the accuracy and completeness of company-produced data used by the specialists and (2) evaluating the relevance and reliability of data obtained from external sources, as well as evaluating other aspects of the specialist’s work as described in paragraph .B8 of proposed Appendix B to AS 1105.

#### ***Implications of the proposal on estimates other than fair value measurements***

While we are supportive of the PCAOB establishing a uniform principles-based standard to address the auditing of accounting estimates, our limited field testing has identified potential concerns with the applicability of certain of the requirements to less complex estimates. Notwithstanding the requirements are capable of being implemented across a variety of estimates, we question whether certain requirements in the proposed standard would be necessary when dealing with estimates other than fair value measurements. For example:

- Requiring an explicit evaluation (as contemplated by paragraph .10) of whether the method used by a manufacturing company to determine an inventory reserve is appropriate for the industry in which the company operates may be unnecessarily prescriptive.
- Requiring auditors to expressly consider – and document – all the factors in paragraph .16 for significant assumptions could increase costs without a corresponding benefit to audit quality. For certain estimates, it may be sufficient for the auditor to evaluate whether the company has a reasonable basis for the significant assumptions used.
- While we agree considering whether data and significant assumptions are internally consistent is appropriate, the extent of effort necessary to make an evaluation as contemplated by paragraph .14 may outweigh the benefits for certain estimates.
- Prescriptive requirements (such as paragraph .16b) for less complex estimates could unnecessarily lead to a “checklist-based approach” to documentation, rather than a more focused and straightforward consideration of the results of the auditor’s procedures in determining whether the estimate was reasonable.

The identification of these matters through initial and limited field testing suggests the PCAOB may benefit from further analysis of the impact of its proposal across the audits of a wide range of estimates and valuations (e.g., varying by industry, size, complexity).

#### **IV. Other matters**

##### ***Applicability of the proposed standard***

We believe the PCAOB should develop its performance standards in a way that can be scaled and tailored to any audit. Having separate performance standards for audits of emerging growth companies or audits of brokers and dealers would be confusing and unhelpful to promoting consistency in audit quality. Accordingly, we support the PCAOB’s position that the proposed standard and proposed amendments would apply to audits of emerging growth companies and to audits of brokers and dealers and have not identified any additional areas of concern unique to those audits.

***Effective date***

The PCAOB has suggested an effective date for audits for fiscal years beginning in the year after approval by the SEC (or for audits of fiscal years beginning two years after the year of SEC approval if that approval occurs in the fourth quarter). The reasonableness of this timeframe is dependent upon how the PCAOB considers and responds to the observations and suggestions from commenters and the extent to which the final standard is consistent with current practice.

***Coordination with the International Auditing and Assurance Standards Board (IAASB)***

We note the ongoing cooperation between the IAASB and PCAOB, primarily through outreach and PCAOB staff's participation in the IAASB's ISA 540 Task Force. It is clearly in the public interest to reach solutions that can bring about consistent, high-quality auditing standards when addressing the same or similar subject matters and auditing concepts. While there can be benefits to exposing different proposals by the boards concurrently, major differences in the underlying approach to auditing accounting estimates are not helpful. In our view, this risks confusion and will not help bring consistency in practice to how accounting estimates are addressed in the audit. We encourage both Boards to continue the dialogue as they move forward in finalizing their respective proposals.

\* \* \* \* \*

We appreciate the opportunity to express our views and would be pleased to discuss our comments or answer any questions that the PCAOB staff or the Board may have. Please contact Leonard Combs (973-236-5265) regarding our submission.

Sincerely,

A handwritten signature in black ink that reads "PricewaterhouseCoopers LLP". The signature is written in a cursive, flowing style.

PricewaterhouseCoopers LLP



RSM US LLP

One South Wacker Drive  
Suite 800  
Chicago, IL 60606

[www.rsmus.com](http://www.rsmus.com)

August 30, 2017

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street N.W.  
Washington, D.C. 20006-2803

Re: PCAOB Rulemaking Docket Matter No. 043

Dear Office of the Secretary:

RSM US LLP appreciates the opportunity to offer our comments on the PCAOB's *Proposed Auditing Standard, "Auditing Accounting Estimates, Including Fair Value Measurements," and Proposed Amendments to PCAOB Auditing Standards*. RSM US LLP is a registered public accounting firm serving middle-market issuers, brokers and dealers.

We appreciate the PCAOB's efforts to clarify the auditor's responsibilities with respect to accounting estimates. A more uniform, risk-based approach to auditing estimates will help to resolve the differences in requirements among the current standards for auditing estimates and the way in which those standards are applied in practice. Also, the subjective assumptions and measurement uncertainty of accounting estimates make them susceptible to management bias, and therefore specifically addressing the application of the auditor's professional skepticism regarding, and response to, potential management bias will be helpful for auditors.

Our letter explains enhancements that could be made to the proposed standard, and includes comments related to specific paragraphs of the proposal that we believe should be clarified or modified.

### **Proposed New Auditing Standard (AS) 2501, *Auditing Accounting Estimates, Including Fair Value Measurements***

#### ***Objective***

Paragraph .03 of proposed AS 2501 states that the objective of the auditor is "to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework, and are free from bias that results in material misstatement." While we note that considering management bias is extremely important when auditing accounting estimates, we are concerned that the objective as currently proposed in paragraph .03 has the potential for confusion as it could be interpreted to mean that the auditor's responsibilities include providing absolute assurance about whether accounting estimates are free from bias. By their nature, accounting estimates, including fair value measurements, generally involve subjective assumptions and measurement uncertainty, making them susceptible to management bias. We suggest clarifying the last phrase of the objective to read, "...and do not reflect material bias."

#### ***Developing an Independent Expectation as a Range***

Paragraph .25 of the proposed standard states, "If the auditor's independent expectation consists of a range rather than a point in time estimate, the auditor should determine that the range is appropriate for identifying a misstatement of the accounting estimate and supported by sufficient appropriate audit

Office of the Secretary  
Public Company Accounting Oversight Board  
August 30, 2017  
Page 2

evidence.” Within this paragraph, the phrase “is appropriate for identifying a misstatement of the accounting estimate” could be construed to imply a level of precision within a range of estimates that may not be feasible. For example, in auditing some accounting estimates with high estimation uncertainty, the auditor could properly conclude that the estimate properly falls within a reasonable range of estimates, even though the range exceeds the auditor’s materiality threshold. We therefore believe the language implying a level of precision within a range of estimates should be removed from paragraph .25.

### ***Evaluating Audit Results***

Paragraph .31 of the proposed standard states:

Evaluating bias in accounting estimates includes evaluating bias in estimates individually and in aggregate. It also includes evaluating whether bias results from the cumulative effect of changes in estimates.

It is unclear whether this paragraph requires the auditor to evaluate bias in individual assumptions, such as when one assumption may be conservative and another assumption may be aggressive, but overall the individual estimate is reasonable. We therefore believe the language in this paragraph should be clarified.

### ***Using Pricing Information from Pricing Services***

We understand that there is diversity in how audit firms use information obtained from third-party sources when auditing fair value measurements. Therefore we appreciate that Appendix A of the proposed standard addresses auditing financial instruments, including procedures specific to an auditor’s use of evidence from third-party pricing sources.

Paragraph .A4.c. of Appendix A implies that for a pricing service to provide reliable pricing information, the auditor should perform procedures to determine whether the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service. Likewise, paragraph .A9.a. of Appendix A implies that for a broker quote to provide relevant and reliable evidence about a fair value measurement, the auditor should perform procedures to determine whether the broker or dealer is free of relationships with the company by which company management can directly or indirectly control or significantly influence the broker or dealer. We believe it would be helpful to provide guidance as to the procedures the auditor should perform that would provide sufficient appropriate evidence that the pricing service, broker or dealer does not have such a relationship with the company.

### ***Proposed Amendments to AS 1105, Audit Evidence***

Paragraph .A4.b. of the new proposed Appendix A to AS 1105 requires the auditor to obtain information about the procedures the investee’s auditor performed and the results thereof or review the audit documentation of the investee’s auditor. It is our understanding that the investee’s auditor would be under no obligation to provide this information. Additionally, it would create unnecessary delays and costs in the financial reporting process for an investee’s auditor to coordinate with multiple investor auditors. We are not aware of issues or pervasive inspection findings that necessitate a change in this aspect of the standards and note that the reasons for and assessment of the change are not discussed in the exposure draft. We believe the extant standards, specifically AS 1105.10-.14 appropriately address procedures related to and that can be applied to audits of investee information, and thus the proposed changes should not be made.

Office of the Secretary  
Public Company Accounting Oversight Board  
August 30, 2017  
Page 3

### **Applicability**

Because accounting estimates are common in almost all financial statements, we agree that the proposed standard should be applicable to audits of financial statements of emerging growth companies. Likewise, we agree that the proposed standard should be applicable to audits of financial statements of brokers and dealers. Given the complexity of the accounting estimates common in the financial statements of brokers and dealers, it would be helpful if the PCAOB would provide more guidance to auditors regarding specific issues that may arise when applying the proposed standard in the audit of a broker or dealer.

### **Effective Date**

If finalized, this proposed standard will require a considerable amount of time for audit firms to develop and implement effective methodologies and related training. Also, the new requirements likely will require extensive discussions with client management and audit committees as they evaluate the potential effect of the additional auditor requirements of this standard together with the requirements of the new auditor reporting model. Due to the extent of these efforts, we believe it would be prudent for the proposed standard to first be effective for audit periods ending two years after the SEC approves the final standard.

We would be pleased to respond to any questions the Board or its staff may have about our comments. Please direct any questions to Sara Lord, National Director of Audit Services, at 612.376.9572.

Sincerely,

*RSM US LLP*

RSM US LLP





August 11, 2017

Office of the Secretary  
PCAOB  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

RE: PCAOB Release No. 2017-002: Proposed Auditing Standard – Auditing Accounting Estimates, Including Fair Value Measurements

To Whom It May Concern:

One of the expressed goals of the Texas Society of Certified Public Accountants (TSCPA) is to speak on behalf of its members when such action is in the best interest of its members and serves the cause of Certified Public Accountants in Texas, as well as the public interest. The TSCPA has established a Professional Standards Committee (PSC) to represent those interests on accounting and auditing matters. The views expressed herein are written on behalf of the PSC, which has been authorized by the TSCPA Board of Directors to submit comments on matters of interest to the committee membership. The views expressed in this letter have not been approved by the TSCPA Board of Directors or Executive Board and, therefore, should not be construed as representing the views or policy of the TSCPA.

Our Committee is in agreement with the guidance included in this proposed auditing standard. We believe the document provides appropriate guidance for auditing accounting estimates and it presents a clear explanation of the use of the risk-based approach in auditing accounting estimates.

We appreciate the opportunity to provide input into the standards-setting process.

Sincerely,

A handwritten signature in black ink, appearing to read "Ken Sibley", is written over a light blue circular stamp.

Ken Sibley, CPA  
Chair, Professional Standards Committee



# ICAEW REPRESENTATION

## 90/17

### **Proposed Auditing Standard – *Auditing Accounting Estimates, Including Fair Value Measurements* and Proposed Amendments to PCAOB Auditing Standards**

ICAEW welcomes the opportunity to comment on the Proposed Auditing Standard – *Auditing Accounting Estimates, Including Fair Value Measurements* and Proposed Amendments to PCAOB Auditing Standards published by PCAOB on 1 June 2017, a copy of which is available from this [link](#)

This response of 30 August 2017 has been prepared on behalf of ICAEW by the Audit and Assurance Faculty. Recognised internationally as a leading authority and source of expertise on audit and assurance issues, the Faculty is responsible for audit and assurance submissions on behalf of ICAEW. The Faculty has around 7,500 members drawn from practising firms and organisations of all sizes in the private and public sectors.

ICAEW is a world-leading professional accountancy body. We operate under a Royal Charter, working in the public interest. ICAEW's regulation of its members, in particular its responsibilities in respect of auditors, is overseen by the UK Financial Reporting Council. We provide leadership and practical support to over 147,000 member chartered accountants in more than 160 countries, working with governments, regulators and industry in order to ensure that the highest standards are maintained.

ICAEW members operate across a wide range of areas in business, practice and the public sector. They provide financial expertise and guidance based on the highest professional, technical and ethical standards. They are trained to provide clarity and apply rigour, and so help create long-term sustainable economic value.

Copyright © ICAEW 2017  
All rights reserved.

This document may be reproduced without specific permission, in whole or part, free of charge and in any format or medium, subject to the conditions that:

- it is appropriately attributed, replicated accurately and is not used in a misleading context;
- the source of the extract or document is acknowledged and the title and ICAEW reference number are quoted.

Where third-party copyright material has been identified application for permission must be made to the copyright holder.

For more information, please contact: [representations@icaew.com](mailto:representations@icaew.com)

[icaew.com](http://icaew.com)

## MAJOR POINTS

1. We welcome these proposals on the audit of accounting estimates (estimates). The audit of estimates is a critical area in virtually all audits, not least because of the increasing use of fair values in accounting frameworks across the world.
2. The proposed standards are crisp and incorporate within them many of the elements of the IAASB's proposals. In particular, we support the move from a 'corroboration' mind-set, to one of 'evaluation'. This is an important shift with implications that go beyond the audit of estimates and to the heart of what it means to exercise professional scepticism in practice. We also welcome the increased emphasis on granularity in the approach to the components of estimates, as set out in paragraph .05.
3. We caution against raising expectations among investors about the impact of more robust auditing procedures on estimates themselves. Whatever auditors do, estimates remain estimates, subject to varying degrees of estimation uncertainty. Even so, these proposals provide an opportunity for the PCAOB to enhance the breadth and depth of investor understanding of estimates which continue to play an increasingly important role in financial reporting. The PCAOB itself notes that adoption of the auditor reporting standards provides investors with the information they have been asking for from auditors and we believe that there is scope for these proposals on estimates to do the same.
4. We are particularly encouraged by the good quality material on management bias included in the Discussion of the Proposed Rule and Appendix 3. The PCAOB's acknowledgement of the importance of bias in the context of audit is important. We urge the PCAOB to continue to develop its thinking on the implications of conscious and unconscious bias on auditor and management behaviour. Raising awareness of these behavioural issues, and articulating them in auditing standards will help mitigate their effects, help auditors manage their own behaviour, improve the quality of audit and in turn, help management improve the quality of financial reporting. Some firms are now starting to bring behavioural psychologists into the audit practice to help auditors understand their own patterns of behaviour more clearly, particularly as they relate to unconscious bias.

### More is needed to achieve true scalability and auditors need to challenge management

5. The PCAOB's proposals focus on fair value estimates. While we are concerned that this represents an over-emphasis on a particular area that the PCAOB currently finds problematic and does little to future-proof the requirements, forward-looking information is now firmly embedded in many financial reporting frameworks. The challenges facing auditors dealing with revenue recognition, impairments and recoverability, accounting for intangibles and current expected credit losses (CECL) are the same as those faced by preparers. The focus on derivatives and complex financial instruments continues to sharpen in this period of significant change in financial reporting. The PCAOB needs to articulate clearly what it is that will be done better and differently by auditors, audit committees and management if confidence among investors is to be enhanced. This is at least as important as improving what auditors are doing in their working papers for inspection purposes.
6. The PCAOB's objectives are worthy, addressing the need for enhanced scepticism, the issue of third party pricing sources and a more uniform risk based approach to the audit of estimates. However, as we noted in our response to the Staff Consultation Paper that preceded this exposure, we believe there could be more emphasis on the need for *challenge* in the auditor's approach to management assertions. The current tone and emphasis is still on the rigour of process. This is critical, but not enough. We acknowledge and support the shift from a 'corroboration' mind-set, to one of 'evaluation' but the standard should require more focus on completeness and on what is not there.

7. The material on third party pricing sources raises expectations without providing adequate support to auditors in the most difficult situations. The requirements of auditors to extract information from third party pricing sources reflected in paragraphs A4b and A5c and A7 are simply unrealistic in some cases because some pricing services will not provide detail on methodology, data or assumptions to their clients, still less to the auditors of their clients. Requiring auditors to perform 'additional' procedures, in such cases, including evaluating the appropriateness of the valuation method and the reasonableness of inputs used by the pricing service, especially when there are no recent transactions either for the financial instrument being valued or for anything similar, without any suggestion as to what those procedures might be, is unhelpful to the smaller companies most likely to be unable to obtain an independent valuation and smaller audit firms without a pricing desk.
8. The PCAOB's focus on process is not wrong in this context, it simply needs to go further. ICAEW's thinking on the broader but closely related area of prospective financial information (PFI) is relevant in this context. Our Corporate Finance Faculty's recent [Consultation paper on prospective financial information](#) updates our guidance for UK directors on the subject published in 2003. In that context we refer to three 'preparation principles', for PFI which we believe apply equally to many estimates, particularly those that are complex, including those based on proprietary models to which management and auditors may have no access.
9. The three basic preparation principles are the bases of sound *business analysis* which renders PFI reliable, *reasonable disclosure* of the relevant uncertainties and mitigating actions, and *subsequent validation* which renders the PFI comparable, and preparers accountable. Translated into auditing terms, this means that auditors need to challenge management to explain:
  - how they have obtained comfort that the estimate is actually based on a sound understanding of how the business actually works - to ensure that assumptions built into the model or background data actually reflect the business environment in which the entity operates;
  - how they have obtained comfort that the right business-specific disclosures have been made for the relevant uncertainties and mitigating factors;
  - how reliable previous estimates have turned out to be in practice, including why they were significantly different where relevant.
10. If management does not rise to this challenge, for whatever reason, auditors may consider whether the issue is a CAM but the important point is for all concerned to acknowledge that it is not enough for management to take a 'take it or leave it' approach when challenged by auditors, and it is not enough for auditors to perform their own rough independent calculations in the hope that the output is not too far away from the figures produced by or on behalf of management. Management and auditors need to engage more closely in these particularly difficult areas and auditors need a better sense of management's ability and willingness to be accountable for complex estimates, regardless of how many specialists and/or third parties are involved.
11. The PCAOB discusses the impact of the limitations of auditors in terms of education and experience when attempting to deal with highly complex issues. These limitations, combined with time and other resource constraints, lead to the use of rules of thumb to evaluate the output of complex models. We urge the PCAOB to engage with the SEC and others involved in the capital markets to address these sensitive, structural issues. They have a significant impact on the quality of the audit of estimates and the PCAOB is well-placed to lead that discussion.
12. For the proposals to be implemented successfully, companies need to be encouraged by the SEC to 'do the right thing'. The PCAOB should urge the SEC to raise levels of awareness of

the new requirements among registrants and to emphasise the importance of management providing:

- good quality support for the estimates they develop on a timely basis;
- clear and unambiguous disclosures.

The SEC should also be seen to be actively discouraging an attitude which challenges auditors to prove management's estimate wrong.

13. The PCAOB notes that some firm methodologies apply certain procedures for the audit of fair values to the audit of all estimates. A challenge to the development of standards that apply to the simplest of low risk inventory provisions as well as the most complex of high risk provisions is that there is a risk of over-engineering the approach to those at the lower end of the scale, and of failing to cover adequately those at the higher end. We have made this point robustly to IAASB and have strongly urged it to consider supplemental authoritative guidance at both ends of the scale.
14. There is increasing recognition of the need for audit regulators to provide examples of 'what good looks like', particularly in emerging and complex areas, and to signal their intentions publicly. While the PCAOB's constituency is significantly different to that of the IAASB, consistency in the approach to enforcement is important for all regulators. Audit inspectors need to know, and to be able to provide examples of, how the proposals can be applied well to both simple and highly complex estimates. We hear good reports of PCAOB inspectors signalling their intentions very clearly to firms. An area in which public signalling is particularly important is the audit of complex financial instruments where there is either no market for the instruments, or only unobservable inputs, no available details of the model, and/or the audit firm has no pricing desk with alternative tools at its disposal. Examples of what good looks can be critical in such situations.

### **Scepticism, shirking and opting to test management's process**

15. The PCAOB states that the increased emphasis on scepticism and the requirement to consider all available evidence should discourage shirking (e.g., simply accepting management's assumptions, models, or estimates). These proposals would stand a better chance of discouraging shirking if they did not align the auditor's approach so closely with management's process.
16. On the one hand, the PCAOB notes that auditors invariably test management's process where that is an option, that they verify assertions on a piecemeal basis, and over rely on management's process rather than critically assessing the estimate, but it then effectively mandates work on management's process in paragraph .10 and the note to .07. When combined with work on management's process mandated in the context of reporting on internal controls over financial reporting, to take any other approach makes no sense. While we do not disagree with the required work on management's process, the combined effect of this and established practice will further entrench the use of the option to test management's process.
17. Understanding management's process is always important but testing it as an audit strategy is not always the best option. Developing an independent estimate, whether using rules of thumb or more sophisticated modelling techniques, has particular value where differences arise that create a basis for engagement with the company and where firms make genuine efforts to encourage this rather than avoiding engagement through the post-hoc rationalisation of differences. Larger firms increasingly use their own rigorously developed, tested and implemented models to provide high quality independent estimates in such cases and the PCAOB should acknowledge existence of such tools, the importance of their quality, the controls around them and the associated risks, their value to the audit of estimates, the extent of their use and their increasing importance within audit firm methodologies. Innovation in auditing is critical to the quality of audit.

18. The PCAOB should make it clear that auditors should not automatically choose this option simply because it is available, regardless of the quality of management's process, or because another route is less straightforward, especially if the alternative route might produce better quality audit evidence. Where appropriate, this would demonstrate the exercise of scepticism and reduce the emphasis on corroborative evidence. We have also made this point in our response to the IAASB.
19. Data analytics is increasingly used in the important area of impairment testing, among others, and there is no recognition at all in the standard of the implications of this development. Advances in technology have not been reflected in these proposals. Furthermore, there is no mention of how the proposals interact with the work on internal controls over financial reporting. Both are significant weaknesses in the proposals.

#### **Respective proposals of the PCAOB and IAASB**

20. The differences between the PCAOB's proposals and those of the IAASB are significant in terms of structure and content – markedly so. This cannot be efficient, or indeed right, especially for the audit of global financial institutions and in the light of the fact that global audit methodologies no longer distinguish between global and local requirements and instead seek to cover both IAASB and PCAOB requirements.
21. We emphasised in our response to the IAASB our belief that its proposals are in some respect over-engineered and that its three-factor approach works for the risk *assessment*, but not the response. We also noted that many commentators, when comparing the proposals side by side, find the structure of the PCAOB's proposals clearer, not least because they broadly reflect the existing approach. Nevertheless, we believe that the PCAOB can and should consider again the substance of the IAASB's proposals which are in most respects well-articulated, nuanced, granular and sophisticated, and consider whether the PCAOB can leverage more of this work than it is currently proposing to do.

**RESPONSES TO SPECIFIC QUESTIONS**

**Q1: Does the discussion of the reasons to improve auditing standards sufficiently describe the nature of concerns related to auditing accounting estimates that the Board should address? Are there additional concerns that the Board should seek to address?**

22. The discussion of the reasons to improve auditing standards describe the nature of concerns related to auditing accounting estimates very well in many respects, but we believe that elements of that discussion should appear in the standard itself, including the discussion of the various types of management bias. Understanding the various types of bias is critical to an effective audit and a fuller description is warranted in the standard itself of the widely accepted types of biases that are so well described by the PCAOB. Auditors should be encouraged to actively consider their own biases, as well as those of management.
23. We also struggle to find evidence that technology, including data analytics, has even been considered in the development of these proposals, still less incorporated, and there seems to be no consideration of the interaction of the proposals with reporting on internal control over financial reporting.
24. The PCAOB should also seek to engage with the SEC and others involved in the capital markets, including the wider investor community to ensure that that constituency understands the importance of management providing good quality support for the estimates they develop, on a timely basis, and to discourage the attitude which challenges auditors to prove management's estimate wrong. It should also do what it can to ensure that expectations are not inappropriately raised about the fact that whatever auditors do, estimates remain just that - estimates - and that auditors cannot audit away estimation uncertainty.

**Q2: Does the information presented above reflect current audit practice? Are there additional aspects of current practice of both larger and smaller audit firms that are relevant to the need for standard setting in this area?**

25. Many smaller companies enter into complex arrangements without understanding the accounting implications of those arrangements. Auditors are expected to obtain the same level of audit evidence as they would in much larger, more mature organisations and management often struggles to provide the necessary support for its estimates that auditors need. This is essentially an accounting issue that might show in the disclosure of boiler plate CAM in audit reports but it is one that auditors and inspection teams still have to address and some public discussion of the issue would be helpful to all concerned.
26. More research is needed to understand the dynamics operating in smaller audit firms dealing with the valuation of sometimes complex financial instruments where there is either no market for the instruments, or unobservable inputs, no details of the model available and/or no firm pricing desk. The PCAOB notes this issue in outline but it is hard to provide examples of 'what good looks like' in this context. Requiring auditors to perform 'additional' procedures, in such cases, including evaluating the appropriateness of the valuation method and the reasonableness of inputs used by the pricing service, without any suggestion as to what those procedures might be, is unhelpful to the smaller companies most likely to be unable to obtain an independent valuation and smaller audit firms without a pricing desk. Different inspections teams may approach the same area in different ways and the absence of public discussion of this issue is worrying. The cost of independent valuations for emerging growth companies can be significant.
27. In our main points above we refer to the fact that the PCAOB's focus on process is not wrong, but that it needs to go further and that it is not enough for auditors to perform their own rough independent calculations in the hope that the output is not too far away from the figures produced by or on behalf of management. Management and auditors need to engage more closely in these particularly difficult areas and auditors need a better sense of management's



ability and willingness to be accountable for complex estimates, regardless of how many specialists and/or third parties are involved.

**Q3: Are there additional changes needed to improve the quality of audit work related to accounting estimates that the Board should include in its proposal?**

28. Improving the quality of accounting will help improve the quality of auditing. As we note above, the PCAOB should seek engagement with the SEC and others involved in the capital markets, including investors, to ensure that all concerned understand the importance of management providing good quality support for the estimates they develop, on a timely basis, and to discourage the attitude which challenges auditors to prove management's estimate wrong.
29. As noted in our main points above, we believe that the standard itself should include a discussion of the various types of management bias, already so well-described by the PCAOB. Understanding the various types of bias is critical to an effective audit.
30. The PCAOB should give further consideration to how developments in technology, including data analytics, can be reflected in these proposals and how the proposals interact with reporting on internal control over financial reporting.
31. We note in our main points above that the proposals could be improved in the particularly difficult areas of proprietary models and pricing services where detail on methodology and data or assumptions are unavailable. Requiring auditors to perform 'additional' procedures, in such cases, even as described, is unhelpful. The PCAOB's focus on process is not wrong in this context, it simply needs to go further and we draw the PCAOB's attention to ICAEW's thinking on the broader but closely related area of PFI and the three 'preparation principles' outlined in our Corporate Finance Faculty's recent [Consultation paper on prospective financial information](#). It is not enough for auditors to perform their own rough independent calculations in the hope that the output is not too far away from the figures produced by or on behalf of management. Management and auditors need to engage more closely in these areas.

**Q4: Are there any other areas relating to auditing accounting estimates that the Board should address in the proposed standard (e.g., are there related areas of practice for which additional or different requirements are needed, such as the use of data analytics)?**

32. The PCAOB should give further consideration to how developments in technology, including data analytics, can be reflected in these proposals and how the proposals interact with reporting on internal control over financial reporting.
33. The PCAOB notes that testing management's process is the most common approach to the audit of estimates. It further encourages that approach by requiring auditors to take heed of management's process regardless of which approach is adopted. While auditors are not discouraged from developing their own estimate, there is no express incentive to do so.
34. On the one hand, the PCAOB notes that auditors invariably test management's process where that is an option, that they verify assertions on a piecemeal basis, and over rely on management's process rather than critically assessing the estimate, but it then effectively mandates work on management's process in paragraph .10 and the note to .07. When combined with work on management's process mandated in the context of reporting on internal controls over financial reporting, to take any other approach makes no sense. While we do not disagree with the required work on management's process, the combined effect of this and established practice will further entrench the use of the option to test management's process.
35. Testing management's process as an audit strategy - rather than developing an independent estimate or looking to subsequent events - is not always the best option, particularly where

- the process is weak;
- third party pricing sources or management specialists use proprietary models and/or data to which neither the company nor its auditors have access.

Developing an independent estimate, whether using rules of thumb or more sophisticated modelling techniques, has particular value where differences arise that create a basis for engagement with the company and where firms make genuine efforts to encourage this rather than avoiding engagement through the post-hoc rationalisation of differences. Larger firms increasingly use their own rigorously developed, tested and implemented models to provide high quality independent estimates in such cases and the PCAOB should acknowledge existence of such tools, the importance of their quality, the controls around them and the associated risks, their value to the audit of estimates, the extent of their use and their increasing importance within audit firm methodologies

36. The PCAOB needs to be seen to be encouraging innovation. The use of data analytics in impairment testing is a good example of auditor development of their own estimates, with the facility to flex assumptions and present them graphically on a real time basis. The PCAOB should make it clear that auditors should not automatically test management's process, simply because it is available, regardless of the quality of management's process, or because another route is less straightforward, especially if the alternative route, such as the use of data analytics in the development of an independent estimate, might produce better quality audit evidence. This would demonstrate the exercise of scepticism and reduce the emphasis on corroborative evidence. We have also made this point in our response to the IAASB.

**Q5: Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition or impairment of financial instruments, that the proposed standard does not adequately address?**

37. We do not believe that the PCAOB should seek to address specific changes in accounting standards because the exercise is doomed to failure. Future-proofing auditing standards – against the impact of the extensive changes to the key industries affected by changes to the accounting for leases, for example – can only be achieved by adopting the objectives based requirements towards which the IAASB has started to move.

**Q 6: Are there additional academic studies or data the Board should consider? The Board is particularly interested in studies or data that could be used to further assess current practice**

38. There are no additional academic studies or data of which we are aware that the Board should consider.

**Q7: The Board requests comment generally on the analysis of the need for the proposal. The Board is interested in any alternative economic approaches to analyzing the issues presented in this release, including references to relevant data, studies, or academic literature.**

39. The application of requirements applicable to fair value estimates may not, in the long run prove efficient or even effective for the audit of other low risk, simpler estimates.

**Q8: The Board requests comment generally on the potential benefits to investors and the public. Are there additional benefits the Board should consider?**

40. The benefits to investors and the public will be maximised if the PCAOB continues to engage to raise awareness of the importance of good quality support provided by management for its estimates to auditors on a timely basis, to manage expectations regarding the nature of the

estimates and the fact that estimates are just estimates and that estimation uncertainty cannot be audited away. The benefits will only be realised if management is actively discouraged from challenging auditors to prove them wrong.

41. We note in our main points above the fact that these proposals provide an opportunity for the PCAOB to enhance the breadth and depth of investor understanding of estimates which continue to play an increasingly important role in financial reporting. The PCAOB itself notes that adoption of the auditor reporting standards provides investors the information they have been asking for from auditors and we believe that there is scope for these proposals on estimates to do the same.

**Q9: The Board requests comment generally on the potential costs to auditors and companies they audit. Are there additional costs the Board should consider?**

42. As the PCAOB notes, an amount of what is proposed is already common practice, especially among larger firms. We believe that the PCAOB should call on the SEC to raise awareness among companies of the need for good quality support by management for its estimates, provided to auditors on a timely basis for these proposals to be effective. Poor quality support provided late in the day for material estimates is not uncommon and the PCAOB should ask the SEC to seek, through its engagement with audit committees, to encourage better behaviour in this regard, and to discourage management from challenging auditors to prove them wrong, but instead to expect and rise to the challenge set by auditors.

**Q10: Are there additional academic studies or data the Board should consider? The Board is particularly interested in studies or data that could be used to assess potential benefits and costs.**

43. There are no additional academic studies or data of which we are aware that the Board should consider.

**Q11: The Board requests comment generally on the potential unintended consequences of the proposal. Are the responses to the potential unintended consequences discussed in the release adequate? Are there additional potential unintended consequences that the Board should consider? If so, what responses should be considered?**

44. We support the PCAOB's post implementation review work through its Centre for Economic and Risk Analysis. This work, in the long run, will best serve the avoidance of unintended consequences.
45. Of the unintended consequences to which the PCAOB refers, we are most concerned about the procedures relating to third-party pricing sources becoming obsolete as technology and changes in capital markets affect how fair values of financial instruments are developed by these third parties. We believe there is excessive emphasis on this area in the proposals.
46. We are also concerned about the reference to the upcoming implementation of significant changes to accounting for financial instruments and the 'identification of matters that are not addressed by the proposal' as a potential unintended consequence. Changes in the requirements for financial instruments are far from the only significant changes in the pipeline. The only way the PCAOB can future-proof its standards effectively is by setting standards that are principles and objectives based. In the long run, we believe that advances in technology will force this issue.
47. We note in our answer to Q12 below some of the difficulties and potential unintended consequences of the proposals for EGCs and their auditors. One way of mitigating the risk of a reduction in competition in the audit market where audit firms withdraw as a result of having just one or two clients in a complex or regulated area might be to phase the requirements for EGCs. We note that these issues are not confined to EGCs.

**Q12: The Board requests comment generally on the analysis of the impacts of the proposal on EGCs. Are there reasons why the proposal should not apply to audits of EGCs? What impact would the proposal likely have on EGCs, and how would this affect efficiency, competition, and capital formation?**

48. We believe that EGCs will struggle with internal controls relating to estimates. Some smaller companies enter into complex arrangements without understanding the accounting implications of those arrangement. While this is essentially an accounting issue, it has implications for the control environment and this may be an area that EGCs need to address.
49. There are issues with the valuation of complex financial instruments where there is either no market for the instruments, or unobservable inputs, no available model to evaluate and/or no firm pricing desk. Understanding ‘what good looks like’ in this context is important and consistency of approach across different inspections teams is critical. The cost of independent valuations for EGCs can be onerous.
50. Exempting EGCs from the requirements entirely would not ameliorate the situation but phasing the requirements in might enable EGCs to address these issues effectively. As with all situations in which an audit firm has only one or two clients in a regulated or complex area, justifying the additional work now required may be difficult and such firms might withdraw from such engagements. This clearly has an adverse effect on competition but we do not believe that this is a valid reason, in this case, to exempt EGCs altogether. We again note that these issues are not confined to EGCs.

**Q13: Are there additional economic considerations associated with this proposal that the Board should consider? If so, what are those considerations?**

**Q14: Are there any factors specifically related to audits of brokers and dealers that may affect the application of the proposal to those audits?**

51. We make no comment on these questions.

**Q15: How much time following SEC approval would accounting firms need to implement the proposed requirements?**

**Q16: Would the effective date as described above provide challenges for auditors? If so, what are those challenges, and how should they be addressed?**

52. The proposed implementation date is for audits of fiscal years beginning in the year after approval by the SEC (or two years if SEC approval is in the fourth quarter). Moving from a mind-set seeking to ‘corroborate’ management’s estimate, to one that ‘evaluates’ is an important shift and will take time. While this will require some firms to consider and develop internal material that requires dissemination through training, for many firms the proposals broadly represent existing best practice and less time will be needed for implementation.
53. Some larger firms, as the PCAOB notes, are probably doing much of what is proposed already and would not need long to implement the proposals. As we note in our answer to Q12, above, it may be prudent to phase implementation for the audit of EGCs.

**Q17: Are the scope and objective of the proposed standard clear?**

54. The respective objectives of the PCAOB and IAASB are as follows:

*PCAOB: The objective of the auditor is to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and disclosed in conformity with the applicable financial reporting framework, and are free from bias that results in material misstatement*

IAASB: *The objective of the auditor is to obtain sufficient appropriate audit evidence about whether:*

- (a) Accounting estimates, whether recognized or disclosed in the financial statements; and*
- (b) Related disclosures in the financial statements,*

*are reasonable in the context of the applicable financial reporting framework*

55. We do not believe that there is a significant difference between these two objectives. There is a difference of emphasis – in the case of the PCAOB on bias and in the case of the IAASB on disclosures and reasonableness – all of which are important. We doubt that these differences will have a significant effect on audit inspections or to the audit approach to estimates by auditors, not least because large firm methodologies are increasingly framework neutral.
56. We urge the IAASB and the PCAOB, going forward, to seek to align their objectives more closely than they do now. The differences between the objectives are less real, and less important, than their respective authors might wish them to be.
57. The scope and objective of the proposed standard are clear, but they would be clearer if the unproductive ‘noise’ created by relatively minor wording differences between the two standards were eliminated by their authors.
58. We note similar differences between PCAOB and IAASB definitions of an estimate. The PCAOB defines an estimate as *a measurement or recognition in the financial statements of (or a decision to not recognize) an account, disclosure, transaction, or event that generally involves subjective assumptions and measurement uncertainty* whereas the IAASB definition is *of a monetary amount, prepared in accordance with the requirements of the applicable financial reporting framework, the measurement of which is subject to estimation uncertainty*. The application material also refers to estimates used in disclosures or used to make judgments about whether or not to recognise or disclose a monetary amount.
59. Ditto significant data and assumptions, which IAASB refers to as being data and assumptions *for which a reasonable variation....would materially affect the measurement of the accounting estimate (A35A)*. The PCAOB defines significant assumptions as those that are *important to recognition or measurement*. At face value, the PCAOB definition is wider, vague and less clear than that of the IAASB, and somewhat circular. Auditors operating locally under tighter definitions will tend to default to those definitions in an attempt to circumscribe an excessively wide PCAOB definition and these differences too, will make little difference to what firms do.

**Q18: Are there challenges in tailoring the scalability of the auditor's response to identified risks of material misstatement as described in the proposal? If so, what are they and how can they be addressed?**

60. We note elsewhere in this response the following challenges in scaling the auditor's response:
  - Third party pricing sources: the requirement for auditors to extract information from third party pricing sources in paragraphs A4b and A5c and A7 are unrealistic where pricing services refuse to provide clients or their auditors with detail on methodology, data or assumptions. Requiring auditors to perform ‘additional’ procedures, in such cases, including evaluating the appropriateness of the valuation method and the reasonableness of inputs used by the pricing service, especially when there are no recent transactions either for the financial instrument being valued or for anything similar, without any suggestion as to what those procedures might be, is unhelpful to the smaller companies most likely to be unable to obtain an independent valuation and audit firms without a pricing desk. There is no example of ‘what good looks like’ in this context and different inspections teams may approach the same area in different ways.

- Smaller companies often enter into complex arrangements without understanding the accounting or control implications of those arrangements and may be an area that smaller companies need to address.

**Q19: Should the proposed standard limit the auditor's selection of an approach and, if so, under what circumstances?**

61. The proposed standard should not limit the auditor's selection of an approach but it should caution against testing management's process unless that is the most appropriate solution. The PCAOB identifies the risk of verifying assertions on a piecemeal basis in such cases, and over relying on management's process rather than critically assessing the estimate.
62. The PCAOB effectively mandates the work on management's process in .10 the note to .07 and while we do not disagree with this, more is needed to ensure that auditors do not always go down that route as a result. The PCAOB should make it clear that auditors should not automatically choose this option simply because it is available, regardless of the quality of management's process, or because another route is less straightforward, especially if the alternative route might produce better quality audit evidence. Where appropriate, this would demonstrate the exercise of scepticism and reduce the emphasis on corroborative evidence. We have also made this point in our response to the IAASB.

**20. Are the proposed requirements for evaluating the company's method used to develop accounting estimates clear? Are there other matters that are important to evaluating a method that should be included in the proposed requirements?**

63. The proposed requirements for evaluating the company's method used to develop accounting estimates are clear but as noted elsewhere in this response, EGCs are likely to struggle with controls in this area.

**21. Are there any further requirements regarding testing internal data or evaluating the relevance and reliability of external data that the Board should consider?**

**22. Are the proposed requirements to evaluate whether data was appropriately used by the company clear? Are there other criteria the auditor should assess to make this evaluation? If so, what are they?**

64. The requirements regarding testing internal data and evaluating the relevance and reliability of external data are thin. The only two references to completeness in the proposals are found in these requirements and we note the increasing importance of data analytics in this area. Some acknowledgement of the existence of such tools as an alternative to sampling, and the importance of the integrity of tools and the controls over their development would not be amiss in this context.

**23. Are the proposed requirements for the auditor to identify significant assumptions and to evaluate whether the company has a reasonable basis for significant assumptions used clear? Do those requirements pose any practical difficulties and, if so, how could the proposed standard be revised to address those difficulties?**

65. IAASB refers to significant assumptions as being where *a reasonable variation in the assumption would materially affect the measurement of the accounting estimate*. The PCAOB refers to those that are *important to recognition or measurement*. The requirements relating to significant assumptions are clear but we note above our belief that the difference between the PCAOB and IAASB definitions of significant assumptions will make little difference to what firms do in practice, and our belief that going forward the PCAOB and IAASB should seek to avoid what are, in substance, differences of little consequence such as these.

24. Are the proposed requirements described above for developing an independent expectation clear? Are there other matters relevant to the proposed requirements that the Board should consider?

25. Is the proposed requirement that the auditor have a reasonable basis for the assumptions and method used when the auditor independently derives assumptions, or uses his or her own method in developing an independent expectation, clear? Are there other matters relevant to the proposed requirement that the Board should consider?

26. Are there instances today when auditors generate or accumulate data directly and use that data to develop an independent estimate, rather than obtain data from a third party or the company under audit? If so, please describe those instances and how the proposed requirements should address them.

27. Are there instances when auditors obtain methods from third parties in developing an independent expectation of an accounting estimate? If so, please describe those instances and whether and how the proposed requirements should address them

28. Are the proposed requirements for developing an independent expectation when using the company's data, assumptions, or methods clear?

66. We believe that the PCAOB should not discourage auditors from developing independent estimates. We note in our main points above that larger firms increasingly use their own rigorously developed, tested and implemented models to provide high quality independent estimates and the PCAOB should acknowledge existence of such tools, the importance of their quality, the controls around them and the associated risks, their value to the audit of estimates, the extent of their use and their increasing importance within audit firm methodologies. The PCAOB should also emphasise that fact that developing an independent estimate, whether using rules of thumb or more sophisticated modelling techniques, has particular value where differences arise that create a basis for engagement with the company and where firms make genuine efforts to encourage this rather than avoiding engagement through the post-hoc rationalisation of differences. Otherwise auditors seeking to avoid being forced down the testing of management's process route, as a result of a combination of the proposed requirements as set out in paragraphs 11 and 12 in our main points above, will face an uphill battle.

67. Data analytics facilitates these innovative approaches. Demands from companies that auditors use data analytics as part of the audit and the shifts in firm recruitment patterns favouring those with analytical aptitudes, means that the PCAOB should more clearly acknowledge the use of these models in this context and the need to consider the implication of the use of such tools for the nature and extent of audit evidence required from understanding and testing controls.

29. Is the proposed requirement for an auditor's range clear? Are there other matters relevant to the auditor developing a range that the Board should consider?

68. The proposed requirement *for an auditor's range* requires further elucidation for consistent implementation. Auditors are required to 'determine' that a range is 'appropriate' and is referred to AS 2810.13 but this is of limited value in this context and very high level. A common example is the use of discount rates applied to pension liabilities. A range of, say, 6-7% may seem reasonable to auditors, audit committees and the pensions industry but if the range this results in exceeds materiality many times over, auditors are left with attempting to 'determine' an appropriate representative point within the range, or narrowing the range, or deciding that the use of a range is inappropriate altogether. These are significant judgements but there is little guidance to support them. At the very least, the PCAOB might observe that to the extent that the range depends on non-monetary assumptions, particular care is needed when determining the monetary implications. The reporting of critical audit matters is also relevant in this context and we note the PCAOB's intention to make changes in this area.

30. Are there additional factors that the auditor should take into account when evaluating the relevance of the audit evidence obtained from events or transactions occurring after the measurement date?

31. Are there other matters relevant to financial instruments that should be considered or included in Appendix A of the proposed standard?
32. Are there other matters that the auditor should take into account when obtaining an understanding of the nature of the financial instruments being valued? If so, what are they?
33. Are there other sources of pricing information for financial instruments that should be addressed in the proposed standard?
69. There are no other factors, matters or sources of pricing information to which we wish to draw attention.
34. Are the requirements for using information from a pricing service clear? Are there other requirements that should be considered? For example, are there other methods used by pricing services to generate pricing information that are not currently addressed in the proposed standard?
35. Do the requirements included in the proposed standard pose operational challenges for audit firms that use centralized groups? If so, what are they and how could they be addressed in the proposed standard?
70. The requirements for using information from a pricing service are clear but somewhat unrealistic without reference to the use of centralised pricing desks and the firm's own models.
71. Centralised pricing desks operate differently in different jurisdictions and across firms. Their high level objectives though are similar however they are used, which is to drive consistency and efficiency across different audits and many in larger firms use internally generated or customised pricing models to facilitate the development of independent estimates. Regulators rightly have concerns about the controls around the development of firm models generally but these concerns have been addressed by firms and the models are generally believed to be robust and flexible. Audit teams that use centralised pricing services do need to ensure that relevant documentation regarding firm-wide control in that area is on the file. We note above our belief that the PCAOB should acknowledge existence of such models, the importance of their quality, the controls around them and the associated risks, their value to the audit of estimates, the extent of their use and their increasing importance within audit firm methodologies. Innovation in auditing is critical to the quality of audit.
36. Is the auditor's responsibility when evaluating relevance and reliability of pricing information from multiple pricing services clear?
37. Are there other characteristics affecting the relevance and reliability of evidence provided by a broker quote that the proposed standard should include?
38. Are there additional factors that the auditor should take into account when evaluating the reasonableness of unobservable inputs?
72. We note in all of these cases the need for auditors to be aware of the implications of bias. We note in our main points above our support for the PCAOB's acknowledgement of the importance of this issue and encourage it to include further material on bias in the main body of the standard.
73. Requirement .A10 relating to unobservable inputs asks a lot, in terms of obtaining an understanding of how unobservable inputs were determined and evaluate their reasonableness taking account of modifications thereto, the assumptions of market participants (whose level of understanding is likely to vary) and whether management appropriately considered 'the information available'. This latter should at the very least be circumscribed by a reference to 'relevant' information.
39. Are the proposed requirements for evaluating audit evidence regarding the valuation of investments based on investee financial condition or operating results clear?



**40. Does the proposed alternative approach for audits of certain investment companies represent a significant change in practice for those audits? If so, how? Is that alternative approach applied in other circumstances? If so, what are those circumstances?**

74. We are unclear as to whether this appears to be a US GAAP specific set of requirements. If it is, we would make an observation to the effect that this is inappropriate in this context given the facility to provide a reconciliation to US GAAP.

**41. Are there other matters relevant to understanding the process used to develop accounting estimates that could be included in the risk assessment standard?**

75. There other no matters relevant to understanding the process used to develop estimates that we are aware of.

**42. Is it appropriate to include how financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures, as part of the discussion among key engagement team members of the potential for material misstatement due to fraud? If not, describe why it is not appropriate**

76. Yes, it is appropriate to include how financial statements could be manipulated through management bias in estimates as part of the engagement team discussion. It would also be helpful if the standard itself could outline very briefly the widely recognised different types of bias.

**43. Are the additional risk factors to identify significant accounts and disclosures involving accounting estimates clear?**

77. The additional risk factors to identify significant accounts and disclosures involving accounting estimates are clear.



## CENTER FOR CAPITAL MARKETS COMPETITIVENESS

**TOM QUAADMAN**  
EXECUTIVE VICE PRESIDENT

1615 H STREET, NW  
WASHINGTON, DC 20062-2000  
(202) 463-5540  
tquaadman@uschamber.com

August 30, 2017

Ms. Phoebe W. Brown  
Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Re: PCAOB *Proposed Auditing Standard–Auditing Accounting Estimates Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards* (PCAOB Release No. 2017-002, June 1, 2017) (PCAOB Rulemaking Docket Matter No. 043)**

Dear Ms. Brown:

The U. S. Chamber of Commerce (the “Chamber”<sup>1</sup>) created the Center for Capital Markets Competitiveness (“CCMC”) to promote a modern and effective regulatory structure for capital markets to fully function in a 21st century economy. CCMC believes that businesses must have a strong system of internal controls and recognizes the vital role external audits play in capital formation.

CCMC supports efforts to improve audit effectiveness and appreciates the opportunity to comment on the Public Company Accounting Oversight Board (“PCAOB”) Exposure Draft on *Proposed Auditing Standard–Auditing Accounting Estimates Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards* (PCAOB Release No. 2017-002, June 1, 2017; PCAOB Rulemaking Docket Matter No. 043) (the “Proposal”).

The Proposal was preceded by a PCAOB Staff Consultation Paper on *Auditing Accounting Estimates and Fair Values* issued in August 2014 (the “Staff Consultation”).

---

<sup>1</sup> The Chamber is the world’s largest federation of businesses and associations, representing the interests of more than three million U.S. businesses and professional organizations of every size and in every economic sector. These members are both users and preparers of financial information.

Ms. Phoebe W. Brown  
August 30, 2017  
Page 2

CCMC was a signatory on a comment letter on this Staff Consultation submitted by the Financial Instruments Reporting and Convergence Alliance (“FIRCA”).<sup>2</sup> Because concerns expressed in that letter remain in the Proposal, the FIRCA letter is included as an attachment.

The Proposal would replace or supersede three PCAOB auditing standards (AS 2501 on *Auditing Accounting Estimates*, AS 2502 on *Auditing Fair Value Measurements and Disclosures*, and AS 2503 on *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*) with one auditing standard on auditing accounting estimates that would encompass auditing fair value measures, derivatives and hedging. We have concerns about this approach as well as specifics in the Proposal.

### **1. Overly Broad Approach**

CCMC would like to reinforce concerns expressed by FIRCA about the PCAOB’s approach to condensing three extant auditing standards into one standard on auditing accounting estimates given the heterogeneous nature of these activities. For example, measuring fair values and accounting for derivatives and hedging are all very different functions, and the Proposal does not make a compelling case as to the benefits provided to audit quality by creating one standard for auditing all of these activities.

We also note that the Proposal would eliminate PCAOB guidance in AS 2503 for auditing derivatives and hedging activities. We understand that much of this guidance continues to be useful for auditors and question the wisdom of eliminating all of it.

Further, it is not clear that the Proposal adequately considers the implications of recent developments in generally accepted accounting principles (“GAAP”) by the Financial Accounting Standards Board (“FASB”) and International Accounting Standards Board (“IASB”) related to accounting estimates, fair values, derivatives and hedging. For example, companies are in the process, or soon will be, of implementing new GAAP requirements for revenue recognition and the determination of credit losses that can involve new and significant estimates. FASB has also recently finalized new guidance to simplify hedge accounting. There is no indication that the PCAOB has sought to identify and address any issues that have or will likely emerge with auditing accounting estimates under these new standards.

---

<sup>2</sup> See the November 3, 2014 letter from FIRCA to the Honorable James Doty on PCAOB Staff Consultation Paper on *Auditing Accounting Estimates and Fair Value Measurements*.

Ms. Phoebe W. Brown  
August 30, 2017  
Page 3

Also, there is no indication that the PCAOB engaged in field-testing, which would also help to determine whether the Proposal is adequate for auditing under new GAAP. CCMC strongly encourages the PCAOB to field-test the Proposal before finalizing any new standard(s) on auditing accounting estimates, fair values, derivatives and hedging. Field-testing should have been used in the development of the Proposal as a means to determine problems, unforeseen consequences, and flaws.

While CCMC generally supports the proposal's principles-based approach, we are concerned about the implications of the PCAOB inspection process given that the Proposal condenses three current auditing standards into one overarching standard. Our particular concern is that the PCAOB inspection process will result in de facto standard-setting down the road. It is essential that the PCAOB have in place mechanisms to ensure this does not occur.

In the earlier FIRCA letter it was strongly recommended that the PCAOB establish a Business Advisory Group. Such a group would help the PCAOB adequately recognize and appreciate financial reporting structures to convey decision useful information to investors and businesses—and issues around auditing the financial reporting and systems of internal control over financial reporting that support it—in the process of developing auditing standards and conducting PCAOB inspections.

## **2. Specific Concerns with the Proposal**

CCMC also has concerns about the objective of auditing accounting estimates (including fair value measurements, derivatives and hedging) as articulated in the Proposal. Indeed the FIRCA letter stated that there was a failure to articulate a need in moving forward on this issue. The current PCAOB standard “provides guidance to auditors on obtaining and evaluating sufficient appropriate evidential matter to support significant accounting estimates in an audit of the financial statements” and recognizes that the “auditor is responsible for evaluating the reasonableness of accounting estimates made by management in the context of the financial statements taken as a whole.”<sup>3</sup> On the other hand, the Proposal states:

*The objective of the auditor is to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable in the circumstances, have been accounted for and*

---

<sup>3</sup> See AS 2501.01 and 2501.04, respectively.

Ms. Phoebe W. Brown  
August 30, 2017  
Page 4

*disclosed in conformity with the applicable financial reporting framework, **and** are free from bias that results in material misstatement (emphasis added).*<sup>4</sup>

We have several issues with this approach. First, the determination of the reasonableness of accounting estimates is no longer articulated in the context of the financial statements taken as a whole. Second, the use of the term “and” appears to create three separate objectives—one of which is a determination that the estimates are free from bias that results in material misstatement. In regards to this objective, a subsequent section of the proposed standard on evaluating audit results instructs the auditor to evaluate bias in accounting estimates, which includes evaluating bias in estimates individually and in aggregate and whether bias results from the cumulative effect of changes in estimates.<sup>5</sup> The Proposal provides no other guidance specific to helping the auditor determine whether accounting estimates are free from bias.

We understand that including an objective on bias is intended to emphasize the need for auditors to exercise professional skepticism as part of the audit process. We appreciate the importance of auditors doing so. However, we question the need for a specific objective on determining bias in accounting estimates (including fair values, derivatives and hedging) to demonstrate that the auditor has exercised professional skepticism.

Essentially, it appears that the Proposal establishes a new performance obligation for auditors in regards to management bias that is separate and distinct from the auditor’s responsibility to express an opinion on whether the financial statements present fairly, in all material respects, an entity’s financial position, results of operations, and cash flows in conformity with GAAP. Any such new performance obligation for auditors would likewise be subject to PCAOB inspections and have consequences for companies.

We strongly urge the PCAOB to focus on providing guidance for auditors to obtain sufficient appropriate audit evidence to determine whether accounting estimates give rise to material misstatements in the context of the GAAP financial statements taken as a whole—and not create any separate and distinct obligation for auditors to also determine whether estimates are somehow free from bias that results in material misstatement.

---

<sup>4</sup> See the Proposal, page A1-1.

<sup>5</sup> See the Proposal, pages A1-12 and A1-13.

Ms. Phoebe W. Brown  
August 30, 2017  
Page 5

Finally, we note that the proposed standard includes guidance for auditors on using pricing information from pricing services and directs the auditor to consider other PCAOB auditing standards on using the work of a company specialist. However, the Proposal does not define or delineate the difference between pricing services and specialists. The PCAOB has received input that such delineation would be useful and we recommend doing so.<sup>6</sup>

Thank you for your consideration of these comments and we stand ready to discuss them with you further.

Sincerely,

A handwritten signature in black ink, appearing to read 'TK' followed by a flourish.

Tom Quaadman

---

<sup>6</sup> For example, see the letter dated November 10, 2014 from the American Bankers Association to the PCAOB on the Staff Consultation Paper – *Auditing Accounting Estimates and Fair Value Measurements*.



U.S. GOVERNMENT ACCOUNTABILITY OFFICE

441 G St. N.W.  
Washington, DC 20548

August 30, 2017

Ms. Phoebe W. Brown  
Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, D.C. 20006-2803

**PCAOB Rulemaking Docket Matter No. 043: PCAOB Release No. 2017-002, *Proposed Auditing Standard – Auditing Accounting Estimates, Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards* (June 1, 2017)**

Dear Ms. Brown:

This letter provides the GAO's comments on the Public Company Accounting Oversight Board's (PCAOB) referenced proposed auditing standard and amendments. GAO promulgates generally accepted government auditing standards, which provide professional standards for auditors of government entities in the United States.

We support the PCAOB's efforts to update the standards for auditing accounting estimates. However, we believe that the proposed standard could benefit from aligning certain requirements with proposed requirements in the International Auditing and Assurance Standards Board's Proposed International Standard on Auditing 540 (Revised), *Auditing Accounting Estimates and Related Disclosures*. We believe that harmonization will reduce inconsistencies between two similar standards. Specifically, we suggest consolidating the set of requirements for identifying and assessing the risks of material misstatement specific to accounting estimates in one standard rather than amending other standards with risk assessment requirements for estimates. Given the deficiencies in auditing accounting estimates identified by PCAOB inspections staff, we believe that grouping the risk assessment requirements specific to auditing estimates in one standard will enhance auditors' ability to identify and assess the risks of material misstatement related to accounting estimates and to tailor the auditor response to the identified risks. We support the proposed organization of requirements in the standard by methods, data, and assumptions. We have found this approach to be useful in our audits of complex estimates in the federal government.

The PCAOB is seeking comment on a number of questions related to the proposed standard. Our responses, as applicable, to the PCAOB's questions follow in an enclosure to this letter. We believe that our suggestions will enhance the consistency of the standard with those promulgated by other standard setters.

Thank you for the opportunity to comment on these important issues. If you have questions about this letter or would like to discuss any of the matters it addresses, please contact me at (202) 512-3133 or [dalkinj@gao.gov](mailto:dalkinj@gao.gov).

Sincerely yours,

A handwritten signature in black ink, appearing to read "James R. Dalkin", with a stylized flourish at the end.

James R. Dalkin  
Director  
Financial Management and Assurance

Enclosure



## Enclosure

### Response to Questions

#### Discussion of the Proposed Rules

1. **Does the discussion of the reasons to improve auditing standards sufficiently describe the nature of concerns related to auditing accounting estimates that the Board should address? Are there additional concerns that the Board should seek to address?**

We believe that the discussion of the reasons to improve auditing standards sufficiently describes the nature of concerns related to auditing accounting estimates that the Public Company Accounting Oversight Board (PCAOB) should address. We have not identified any additional concerns that the board should seek to address.

2. **Does the information presented above reflect current audit practice? Are there additional aspects of current practice of both larger and smaller audit firms that are relevant to the need for standard setting in this area?**

We believe that the information presented above reflects current audit practice. We have not identified any additional aspects of current practice that are relevant to the need for standard setting in this area.

3. **Are there additional changes needed to improve the quality of audit work related to accounting estimates that the Board should include in its proposal?**

See our responses to questions 17, 18, 19, 20, 22, 29, 41, 42, and 43.

4. **Are there any other areas relating to auditing accounting estimates that the Board should address in the proposed standard (e.g., are there related areas of practice for which additional or different requirements are needed, such as the use of data analytics)?**

We have not identified any other areas relating to auditing accounting estimates that the Board should address in the proposed standard.

5. **Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition or impairment of financial instruments, that the proposed standard does not adequately address?**

See our response to question 17.

#### Economic Considerations

6. **Are there additional academic studies or data the Board should consider? The Board is particularly interested in studies or data that could be used to further assess current practice.**

We are not providing comments in response to this question.

- 7. The Board requests comment generally on the analysis of the need for the proposal. The Board is interested in any alternative economic approaches to analyzing the issues presented in this release, including references to relevant data, studies, or academic literature.**

We are not providing comments in response to this question.

- 8. The Board requests comment generally on the potential benefits to investors and the public. Are there additional benefits the Board should consider?**

We are not providing comments in response to this question.

- 9. The Board requests comment generally on the potential costs to auditors and companies they audit. Are there additional costs the Board should consider?**

We are not providing comments in response to this question.

- 10. Are there additional academic studies or data the Board should consider? The Board is particularly interested in studies or data that could be used to assess potential benefits and costs.**

We are not providing comments in response to this question.

- 11. The Board requests comment generally on the potential unintended consequences of the proposal. Are the responses to the potential unintended consequences discussed in the release adequate? Are there additional potential unintended consequences that the Board should consider? If so, what responses should be considered?**

We are not providing comments in response to this question.

#### **Special Considerations for Audits of Emerging Growth Companies**

- 12. The Board requests comment generally on the analysis of the impacts of the proposal on Emerging Growth Companies (EGCs). Are there reasons why the proposal should not apply to audits of EGCs? What impact would the proposal likely have on EGCs, and how would this affect efficiency, competition, and capital formation?**

We are not providing comments in response to this question.

- 13. Are there additional economic considerations associated with this proposal that the Board should consider? If so, what are those considerations?**

We are not providing comments in response to this question.

#### **Applicability of the Proposed Requirements to Audits of Brokers and Dealers**

- 14. Are there any factors specifically related to audits of brokers and dealers that may affect the application of the proposal to those audits?**

We are not providing comments in response to this question.

**Effective Date****15. How much time following SEC approval would accounting firms need to implement the proposed requirements?**

We are not providing comments in response to this question.

**16. Would the effective date as described above provide challenges for auditors? If so, what are those challenges, and how should they be addressed?**

We are not providing comments in response to this question.

**Proposed Standard****17. Are the scope and objective of the proposed standard clear?**

We believe that the scope of the proposed standard is clear. However, we suggest that the objective of the standard be broadened to state that auditors should determine whether accounting estimates and disclosures are reasonable in the context of the applicable financial reporting framework. We believe that the proposed objective to determine whether accounting estimates have been disclosed in conformity with the applicable financial reporting framework does not properly address situations in which management may need to provide disclosures beyond those specifically required by the framework that are necessary to achieve the fair presentation of the financial statements as a whole. We also believe that the proposed objective to determine whether accounting estimates are free from bias that results in material misstatement is too narrow. While we acknowledge the importance of assessing bias in accounting estimates, the proposed objective does not address the other possible causes of material misstatement. In our view, broadening the objective will increase the clarity of the standard; will make it easier for auditors to effectively apply; and will harmonize the objective with the International Auditing and Assurance Standards Board's (IAASB) International Standard on Auditing 540 (Revised), *Auditing Accounting Estimates and Related Disclosures* (ED-540).

**18. Are there challenges in tailoring the scalability of the auditor's response to identified risks of material misstatement as described in the proposal? If so, what are they and how can they be addressed?**

We agree that the proposed standard will be scalable if auditors respond to risk of material misstatement and focus on the standard's objective to obtain sufficient appropriate evidence. However, in our view, the proposed requirements for identifying, assessing, and responding to risks of material misstatement could be consolidated and clarified.

Specifically, we suggest that the proposed standard could benefit from the following revisions:

- Consolidating the set of requirements for identifying and assessing the risks of material misstatement specific to accounting estimates in one standard, similar to paragraphs 10 through 13 of the IAASB's ED-540, rather than amending other standards with risk assessment requirements for estimates. For example, we believe that it would be appropriate to require gaining an understanding of internal control specific to accounting estimates in the proposed standard. We also suggest that the proposed standard require auditors to perform a retrospective review of accounting estimates (currently in AS

2401.64), and that the PCAOB revise the requirement for retrospective review to note that it will assist in identifying and assessing the risk of material misstatement, similar to paragraph 11 of the IAASB's ED-540.

- Defining “components” in paragraph .04 of the proposed standard.
- Clarifying how auditors demonstrate that the responses to the assessed risks of material misstatement involve the application of professional skepticism in gathering and evaluating audit evidence, as required by the third note in paragraph .05. We suggest that the PCAOB could instead require auditors to evaluate both corroborative and contradictory audit evidence similar to the requirement in the IAASB's ED-540, paragraph 23. We believe that this approach could be more straightforward for auditors to implement when evaluating audit evidence related to estimates.

Given the deficiencies in auditing accounting estimates identified by PCAOB inspections staff, we believe that revising the proposed requirements for identifying, assessing, and responding to risks of material misstatement will enhance auditors' ability to identify and assess the risks of material misstatement related to accounting estimates and to tailor the auditor response to the identified risks.

**19. Should the proposed standard limit the auditor's selection of an approach and, if so, under what circumstances?**

We support the proposed standard that allows the auditor to use judgment in determining the appropriate approach or approaches for testing the accounting estimate. However, we encourage the PCAOB to consider whether auditors should always evaluate audit evidence from events or transactions occurring after the measurement date related to the accounting estimate. In our view, there would be limited circumstances in which this approach would not provide appropriate audit evidence to determine whether accounting estimates are reasonable.

**20. Are the proposed requirements for evaluating the company's method used to develop accounting estimates clear? Are there other matters that are important to evaluating a method that should be included in the proposed requirements?**

We believe that the proposed requirements for evaluating the company's method for developing accounting estimates are clear. We suggest that the proposed standard could benefit from additional requirements for evaluating the company's method, such as those included in the IAASB's ED-540, including evaluating whether

- the design of the model meets the measurement objective of the applicable financial reporting framework and is appropriate in the circumstances;
- adjustments, if any, to the output of the model are consistent with the measurement objective of the applicable financial reporting framework and are appropriate in the circumstances;
- the integrity of significant data and significant assumptions has been maintained in applying the method; and
- calculations are mathematically accurate and appropriately applied.

**21. Are there any further requirements regarding testing internal data or evaluating the relevance and reliability of external data that the Board should consider?**

We believe that the proposed requirements regarding testing internal data and evaluating the relevance and reliability of external data are sufficient.

**22. Are the proposed requirements to evaluate whether data was appropriately used by the company clear? Are there other criteria the auditor should assess to make this evaluation? If so, what are they?**

We believe that the proposed requirements for whether the company appropriately used the data are clear. The auditor should also assess whether management has appropriately understood or interpreted significant data, including with respect to contractual terms in evaluating whether the company appropriately used the data, similar to requirements in the IAASB's ED-540.

**23. Are the proposed requirements for the auditor to identify significant assumptions and to evaluate whether the company has a reasonable basis for significant assumptions used clear? Do those requirements pose any practical difficulties and, if so, how could the proposed standard be revised to address those difficulties?**

We believe that the proposed requirements for the auditor to identify significant assumptions and to evaluate whether the company has a reasonable basis for significant assumptions used are clear. We do not foresee those requirements posing any practical difficulties.

**24. Are the proposed requirements described above for developing an independent expectation clear? Are there other matters relevant to the proposed requirements that the Board should consider?**

We believe that the proposed requirements for developing an independent expectation are clear and sufficient.

**25. Is the proposed requirement that the auditor have a reasonable basis for the assumptions and method used when the auditor independently derives assumptions, or uses his or her own method in developing an independent expectation, clear? Are there other matters relevant to the proposed requirement that the Board should consider?**

We believe that the proposed requirement that the auditor have a reasonable basis for the assumptions and method used when independently deriving assumptions or using his or her own method in developing an independent expectation is clear and sufficient.

**26. Are there instances today when auditors generate or accumulate data directly and use that data to develop an independent estimate, rather than obtain data from a third party or the company under audit? If so, please describe those instances and how the proposed requirements should address them.**

We have not encountered any instances in GAO audits when auditors generate or accumulate data directly and use those data to develop an independent estimate, rather than obtain data from a third party or the entity under audit.

**27. Are there instances when auditors obtain methods from third parties in developing an independent expectation of an accounting estimate? If so, please describe those instances and whether and how the proposed requirements should address them.**

We have not encountered any instances in GAO audits when auditors obtain methods from third parties in developing an independent expectation of an accounting estimate.

**28. Are the proposed requirements for developing an independent expectation when using the company's data, assumptions, or methods clear?**

We believe that the proposed requirements for developing an independent expectation when using the company's data, assumptions, or methods are clear.

**29. Is the proposed requirement for an auditor's range clear? Are there other matters relevant to the auditor developing a range that the Board should consider?**

We believe that the proposed requirement for an auditor's range is clear. However, we suggest that the PCAOB consider whether the proposed standard could benefit from additional guidance regarding how to assess material misstatement when there is a large degree of measurement uncertainty, similar to guidance in paragraph A144 in the IAASB's ED-540. Also, the PCAOB could consider whether to provide guidance to auditors on when it may be appropriate to discuss significant measurement uncertainty in the auditor's report. While this additional discussion in the auditor's report could be considered a critical audit matter, we believe that auditors may find guidance on significant measurement uncertainty helpful.

**30. Are there additional factors that the auditor should take into account when evaluating the relevance of the audit evidence obtained from events or transactions occurring after the measurement date?**

We believe that the factors in the proposed standard are sufficient.

**31. Are there other matters relevant to financial instruments that should be considered or included in Appendix A of the proposed standard?**

We did not identify any other matters relevant to financial instruments that should be considered or included in appendix A of the proposed standard.

**32. Are there other matters that the auditor should take into account when obtaining an understanding of the nature of the financial instruments being valued? If so, what are they?**

We are not aware of any other matters that the auditor should take into account when obtaining an understanding of the nature of the financial instruments being valued.

**33. Are there other sources of pricing information for financial instruments that should be addressed in the proposed standard?**

We are not aware of any other sources of pricing information for financial instruments that should be addressed in the proposed standard.

- 34. Are the requirements for using information from a pricing service clear? Are there other requirements that should be considered? For example, are there other methods used by pricing services to generate pricing information that are not currently addressed in the proposed standard?**

We believe that requirements for using information from a pricing service are clear, and we are not aware of any other requirements that should be considered.

- 35. Do the requirements included in the proposed standard pose operational challenges for audit firms that use centralized groups? If so, what are they and how could they be addressed in the proposed standard?**

We are not providing comments in response to this question.

- 36. Is the auditor's responsibility when evaluating relevance and reliability of pricing information from multiple pricing services clear?**

We believe that the auditor's responsibility when evaluating relevance and reliability of pricing information from multiple pricing services is clear.

- 37. Are there other characteristics affecting the relevance and reliability of evidence provided by a broker quote that the proposed standard should include?**

We have not identified other characteristics affecting the relevance and reliability of evidence provided by a broker quote that the proposed standard should include.

- 38. Are there additional factors that the auditor should take into account when evaluating the reasonableness of unobservable inputs?**

We have not identified additional factors that the auditor should take into account when evaluating the reasonableness of unobservable inputs.

#### **Proposed Amendments to PCAOB Standards**

- 39. Are the proposed requirements for evaluating audit evidence regarding the valuation of investments based on investee financial condition or operating results clear?**

We believe that the proposed requirements for evaluating audit evidence regarding the valuation of investments based on investee financial condition or operating results are clear.

- 40. Does the proposed alternative approach for audits of certain investment companies represent a significant change in practice for those audits? If so, how? Is that alternative approach applied in other circumstances? If so, what are those circumstances?**

We are not providing comments in response to this question.

**41. Are there other matters relevant to understanding the process used to develop accounting estimates that could be included in the risk assessment standard?**

We believe that the standard could benefit from adding a requirement and considerations related to the auditor obtaining an understanding of how management identifies and addresses the risk of management bias. We believe that including this matter in the standard will prompt auditors to devote greater attention to addressing potential management bias in accounting estimates and assist auditors in appropriately assessing the risk of material misstatement. As noted above in our response to question 18, we also suggest including a consolidated set of requirements for identifying and assessing the risks of material misstatement specific to accounting estimates in the proposed standard rather than amending other standards with risk assessment requirements for estimates. We believe that grouping the risk assessment requirements specific to auditing estimates in one standard will enhance auditors' ability to identify and assess the risks of material misstatement related to accounting estimates and tailor the response to the identified risks.

**42. Is it appropriate to include how financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures, as part of the discussion among key engagement team members of the potential for material misstatement due to fraud? If not, describe why it is not appropriate.**

We believe that it is appropriate to require key engagement team members to discuss how financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures. We agree that such a requirement would focus the auditor's attention on a risk that is particularly relevant to accounting estimates and further underscores the importance of applying professional skepticism in this area. However, we suggest that the requirement be included in AS 2110, *Identifying and Assessing Risks of Material Misstatement*, in paragraphs .49 through .51. We believe that the discussion relates more directly to the overall discussion of the susceptibility of a company's financial statements to material misstatement.

**43. Are the additional risk factors to identify significant accounts and disclosures involving accounting estimates clear?**

We suggest that discussion of additional risk factors to identify significant accounts and disclosures should be revised as follows:

**AS 2110.60A** Additional risk factors relevant to the identification of significant accounts and disclosures involving accounting estimates include the following:

- a. The degree of uncertainty associated with the future occurrence or outcome of events and conditions underlying the significant assumptions;
- b. The complexity of the process for developing the accounting estimate, including the extent to which the process involves specialized skills or knowledge;
- c. The number and complexity of significant assumptions associated with the process;
- d. The complexity of the data used for developing the accounting estimate, including the difficulty, if any, in obtaining relevant and reliable data and maintaining the integrity of those data;



- e. The degree of subjectivity associated with significant assumptions (for example, because of significant changes in the related events and conditions or a lack of available observable inputs) and potential for management bias; and
- f. If forecasts are important to the estimate, the length of the forecast period and degree of uncertainty regarding trends affecting the forecast.

We believe that the additional risk factors noted above will assist auditors in effectively identifying significant accounts and disclosures and will align with the IAASB's ED-540.



**Exhibit 2(a)(D)**

**Alphabetical List of Commenters on Staff Consultation Paper on Auditing Accounting Estimates and Fair Value Measurements**

1	American Academy of Actuaries
2	American Accounting Association
3	American Bankers Association
4	American Federation of Labor and Congress of Industrial Organizations (AFL-CIO)
5	American Funds
6	Appraisal Institute
7	BBD, LLP
8	BDO USA, LLP
9	Steven E. Buller, Independent Trustee/Director
10	Pw Carey
11	Center for Audit Quality (2 Letters)
12	Dr. G. K. Chinoy FCA CPA
13	Colorado PERA
14	Council of Institutional Investors
15	Crowe Horwath LLP
16	Deloitte & Touche LLP
17	Duff & Phelps, LLC
18	Ernst & Young LLP
19	Federal Housing Finance Agency

<b>Alphabetical List of Commenters on Staff Consultation Paper on Auditing Accounting Estimates and Fair Value Measurements</b>	
20	Federation of European Accountants
21	James L. Fuehrmeyer, Jr., MBA, CPA, Associate Teaching Professor, University of Notre Dame
22	Dr. Steven Glover, Professor, Brigham Young University; Dr. Mark Taylor, Professor, Case Western Reserve University; Dr. Yi-Jing Wu, Associate Professor, Case Western Reserve University; Brant Christensen, Doctoral candidate, Texas A&M University
23	Grant Thornton LLP
24	Harvest Investments, Ltd.
25	Institut der Wirtschaftsprüfer
26	Institute of Management Accountants
27	Interactive Data Corporation
28	International Auditing and Assurance Standards Board
29	Investment Company Institute
30	King Valuation Services, LLP
31	KPMG LLP
32	McGladrey LLP
33	MetLife, Inc.
34	National Association of Real Estate Investment Trusts
35	National Venture Capital Association (2 Letters)
36	PricewaterhouseCoopers LLP
37	SwissHoldings
38	The Financial Instruments Reporting and Convergence Alliance
39	The Institute of Chartered Accountants in England and Wales
40	Gilbert F. Viets
41	WeiserMazars LLP



October 31, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, DC 20006-2803  
Via email [comments@pcaobus.org](mailto:comments@pcaobus.org)

RE: Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*

Dear Public Company Accounting Oversight Board Members:

On behalf of the Financial Reporting Committee (the “Committee”) of the American Academy of Actuaries<sup>1</sup>, I am pleased to provide comments on the Public Company Accounting Oversight Board’s (PCAOB or the “Board”) *Auditing Accounting Estimates and Fair Value Measurements* staff consultation paper. Actuaries are involved in preparing, evaluating and, auditing a wide variety of estimates including pension benefit obligations, health retiree benefits, insurance company unpaid claim obligations, liabilities for insurance contracts, deferred acquisition cost assets, self-insurance liabilities, loyalty reward obligations, and customer refunds. Some of these estimates include measurements on a fair value basis.

The Committee supports the paper’s recommendation to have a single standard covering the audit of both accounting estimates and fair value measurements because: (1) fair value measurements are a sub-set of accounting estimates; (2) this approach reduces potential inconsistency, especially between level 3 fair value measurement and other accounting estimates; and (3) it is consistent with the International Auditing and Assurance Standards Board’s (IAASB) approach.

The Committee believes that the auditor must either be qualified to perform audit procedures regarding an estimate or utilize the services of an appropriately qualified specialist. The type of expertise and the extent of the use of the specialist needed would be dependent on the nature and materiality of the item being estimated or measured. Qualification would be demonstrated through attained education and experience and may be evident, in part, by professional credentials. For example, the audit procedures for the various types of insurance or pension liabilities should include a review by an appropriately qualified actuary with respect to the specific types of liabilities.

---

<sup>1</sup> The American Academy of Actuaries is an 18,000+ member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

The relationship between this proposed standard and the standard addressing the use of the work of a specialist in the audit is an important one. A specialist can take any of several roles: a member of the audit engagement team, a third party hired by the audit firm not on the audit engagement team, an employee of the reporting company or a specialist hired by the reporting company. The roles of these specialists—who have met applicable education and experience requirements and follow a set of developed standards of practice (as is the case with credentialed actuaries)—need to be understood and managed appropriately in the context of the development of an audit conclusion.

The Committee supports the principles of Generally Accepted Auditing Standard (AU) 336 of the AICPA. In particular, an auditor may use the findings of an in-house specialist, with the exception of insurance company loss reserves as noted in footnote 4 in AU 336, or external company specialists by (1) obtaining an understanding of the methods and assumptions used by the specialists, (2) making appropriate tests of the data provided to the specialists, and (3) evaluating whether the specialist’s findings support the recorded reserves; or perform other test work such as an independent analysis.

The examples covered by this consultation paper appear to be limited to certain areas of valuation. We recommend that the PCAOB provide guidance that covers the full range of estimate types, rather than a limited number.

In response to PCAOB’s specific questions on the proposed standards, the Committee would like to offer feedback on the following questions:

1. *Does the information presented above reflect aspects of current audit practice? Are there additional aspects of current practice, of both larger and smaller audit firms – including centralized testing, the use of third parties, or specific challenges to auditing accounting estimates and fair value measurements – that are relevant to the staff’s consideration of the need for standard setting in this area?*

Staff should consider that the use and role of specialists (the IAASB refers to these as “experts”) is important in two contexts: (1) the management’s development of estimates and measurements and (2) the auditor’s auditing of such estimates and measurements. Both management and the auditor can use qualified specialists that are either within their organizations or are contracted third parties for their respective roles.

4. *Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included within a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?*

Although relevant accounting standards have different requirements, the Committee believes that there are more common aspects than differences, especially relating to level 3 fair value measurements.

5. *Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition, that the staff should specifically take into account in developing a potential new standard?*

The Committee suggests the PCAOB should take into account the Financial Accounting Standards Board's (FASB) proposed changes to the accounting for insurance contracts, especially those of long duration. Although the guidance is not finalized, it is likely a greater emphasis will be placed on current estimates within long duration insurance contracts, i.e., estimates that are updated at least annually that relate to cash flows that in some cases will not occur for many years in the future.

7. *Based on commenters' experience in applying ISA 540 (or AU-C 540), are there any aspects, positive or negative, of a single-standard approach that the staff should consider in connection within a potential new standard? Are there any other lessons learned from the implementation of ISA 540 (or AU-C 540) that the staff should consider in its approach to standard setting in this area?*

One lesson learned is that there could be a need for supplementary education material, possibly in an appendix or other education material relevant to specialized topics because not all auditors may have specific education and experience relative to complex assets or liabilities such as derivatives, retirement benefit programs, or insurance contracts.

8. *If AU sec. 332 were to be superseded, are there elements that should be retained? With respect to derivatives and securities, are there enhancements related to auditing assertions other than valuation that the staff should consider?*

The Committee has not identified any elements, other than corresponding references to the use of the results of specialists.

9. *Are there considerations relevant to auditing accounting estimates and fair value measurements including other regulatory requirements specific to certain industries that the staff should take into account?*

It may be useful to verify that the requirements of regulators, including the National Association of Insurance Commissioners (NAIC), are considered. In particular, the Committee recommends reviewing SSAP 55.12 and SSAP.11. According to SSAP 55.12, management's analysis (in determining the estimate) "shall include an analysis of the amount of variability in the estimate." The same paragraph says "no single ... reserve can be considered accurate with certainty." SSAP.11 states "No single projection method is inherently better than any other in all circumstances. The results of more than one method should be considered." While these sections provide the guidance for the estimate and not the audit, they should be considered when auditing the estimate.

*10. Should the requirements for identifying and assessing risks of material misstatement with respect to accounting estimates and fair value measurements – including risk assessment procedures – be included in Auditing Standard No. 12 or be separately set forth in a potential new standard on auditing accounting estimates?*

The Committee provides no recommendation on the structure, as long as the requirements are expressed clearly. The Committee suggests organizing the requirements in a manner consistent with the material covered in the International Standards on Auditing (ISA) 540.

*11. Are there additions or revisions to the existing requirements in PCAOB standards for identifying and assessing risks of material misstatement regarding accounting estimates that should be considered?*

The Committee has not identified any changes to the existing requirements, although addressing the use of the models and assumption setting governance would be appropriate to cover.

*12. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other matters relevant to understanding the process used to develop accounting estimates or fair value measurements that could be included in Auditing Statement No. 12?*

The Committee agrees the potential amendment is appropriate, although, as mentioned elsewhere, the role of various specialists should be clearly identified and relevant to the other standards referenced.

*13. In circumstances where the company uses information obtained from a third party, are there matters – such as information systems at third parties, controls that management has over the work of third parties, and controls at third parties – not currently addressed in AU sec. 324, Service Organizations, or other standards that the staff should consider?*

Data quality and management of in-house and external specialists need to be properly covered.

*14. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other factors that would be relevant in the auditor's evaluation of the degree of complexity of judgment in the recognition or measurement of an accounting estimate or fair value measurement (e.g., the use of a third party for the determination of a price)?*

The use of specialists, as discussed later in the consultation paper, and the company's governance process for deriving the estimates (including approvals and independence) should be incorporated. The degree of complexity in the models used to derive estimates (or ranges of estimates) needs to be tempered by judgment, both in derivation and audit review.

*16. Are there certain types of accounting estimates or fair value measurements that should be presumed to be significant risks?*

The Committee believes this needs to be assessed on a case-by-case basis, depending on the facts and circumstances, such as materiality of the items estimated or measured, and the uncertainties

and sensitivities involved. For example, for most, but not all insurance companies, liabilities associated with insurance contracts would represent significant risks; however, in some cases the liabilities of insurance contracts may not be material or are relatively minor in relation to liabilities or to the surplus of the company. It is important to note that some insurance contract liabilities do not involve estimates. For example, the reserves for universal life contracts without significant secondary guarantees do not necessarily involve estimation and may have little risk because they are equal to the account value.

*17. Are there considerations particular to the timing and extent of these procedures (e.g., interim audit procedures), beyond the requirements of paragraphs 42-46 of Auditing Standard No. 13, that the staff should consider including in a potential new standard?*

In some cases, intensive interim review procedures are needed (e.g., if assumptions are changed in the third quarter) due to what is usually a relatively short time available for review of financial statement items and the basis of their estimates and measurements. This timing needs to be addressed in the course of audit planning, especially involving specialists who are part of the audit engagement team.

*18. Is the potential amendment to Auditing Standard No. 13 described above helpful in emphasizing the auditor's consideration of the applicable accounting framework when auditing significant accounts and disclosures?*

This guidance will be helpful to small firms where much of the background information is not as well-known and organized as in larger firms.

*20. Given the existing requirements relating to testing controls in Auditing Standard No. 13 (and Auditing Standard No. 5, as applicable), would specific requirements on testing internal controls over accounting estimates be useful (e.g., evaluation of design and operating effectiveness of key review controls over accounting estimates)?*

The Committee has identified the emphasis on testing data quality and controls over the governance of models, assumptions, and external specialists as specific requirements that would be useful.

*21. Should a potential new standard include specific audit procedures that would be applicable when the auditor identifies and assesses a risk related to accounting estimates as a significant risk? If so, are there factors regarding measurement uncertainty or any other characteristics relevant to staff considerations of potential audit requirements?*

Appropriate auditing procedures relating to significant risks inherent in estimates and fair value measurements need to be considered for inclusion. Sensitivity testing may be needed to determine whether risk (assumption) is significant or not. The procedures included in ISA 540 should generally be considered.



*22. Are there specific factors that affect the auditor's selection of approaches related to testing accounting estimates? What considerations would be appropriate for the auditor to take into account when determining which approach (or combination of approaches) for testing accounting estimates should be selected?*

Materiality, risks, and uncertainties associated with the accounting estimates and fair value measurements could affect the auditor's selection of approaches related to testing accounting estimates. The size and consistency over time of audit ranges relative to other aspects of the company's financial statements also need to be considered. Results of initial back-testing from expectations set in a previous analysis may indicate the appropriateness of previous methods and assumptions and assist in determining where additional procedures may be needed during the current audit, such as an independent calculation of the estimate.

*23. Aside from testing management's process, developing an independent estimate, or reviewing subsequent events and transactions as further discussed, should a potential new standard allow for or require other approaches to testing accounting estimates? If so, what other approaches would be appropriate?*

The Committee notes that there are a wide range of items that can require different methods of validating. For example, a one-year look-back might be appropriate for certain risks while for others it would not be, such as long-term mortality expectations. Instead, experience studies might be appropriate for assessing estimates related to items like mortality. Other methods may include trend testing and benchmarking against similar estimates. Although general principles might be appropriate, their application may be very different depending on the situation.

*26. Are the potential requirements described above for evaluating whether the company's method used to develop accounting estimates appropriate for both accounting estimates and fair value measurements?*

Yes, the potential requirements are appropriate. The Committee would note that in certain cases multiple methods, alternative assumptions, multiple models, alternative levels of detail, and other technical judgments are considered in deriving accounting estimates.

*27. In circumstances where the financial reporting framework does not specify the use of a particular valuation method, is the consideration of methods accepted by the company's industry relevant? Are there other criteria that auditors could use to evaluate the appropriateness of the company's method used to develop accounting estimates?*

Consistency with professional practice (e.g., in the case of insurance contracts and employee benefits) would be relevant. Consequently, the PCAOB may want to consider the standards of practice or statements of principles issued by relevant professional bodies.

*28. Would a requirement for the auditor to determine which assumptions used by management are significant assumptions present difficulty in practice? Would the staff consider a requirement for the auditor to identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate?*

The Committee does not believe the requirement described would present difficulty in practice. Although the absence of an assumption is, in itself, an assumption, we believe that the focus of the second question relates to lack of explicit identification of assumptions made – in most cases, where significant, assumptions should be made in an explicit manner. We agree that it would be appropriate given the importance of identifying such significant assumptions.

*29. Is the potential requirement suggested above clear and appropriate for both accounting estimates and fair value measurements? Are there other specific characteristics of significant assumptions that should be included?*

In certain cases, the effect of assumptions around risk mitigation techniques, such as reinsurance, that have been implemented prior to the report date should be considered.

*30. Are the suggested factors described above appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluating the reasonableness of significant assumptions relevant to accounting estimates?*

The Committee suggests emphasizing the associated risks, uncertainties, and the process used to derive and approve the significant assumptions.

*31. Is the potential requirement described above appropriate for all types of accounting estimates? Are there other considerations that should be taken into account in applying this requirement to accounting estimates?*

One consideration the Committee identified is data quality, especially for data that are significant in the determination of estimates and measurements.

*32. Are the potential requirements described above for developing an independent estimate, including the potential requirements regarding testing data and assumptions, clear and appropriate for both accounting estimates and fair value measurements? Would these requirements present challenges for certain types of accounting estimates and fair value measurements?*

The Committee emphasizes the need for a consideration of appropriate audit estimate ranges. As actuaries, we realize that the future is uncertain and that there may be a range of reasonable assumptions. Of course, these have to be assessed in the development of acceptable ranges, which are a function of the uncertainties and materiality involved.

*33. Are there additional consideration that should be addressed with respect to information obtained by the auditor from a third-party source?*

Additional considerations that should be addressed include (1) the independence, education and experience of the third party, (2) the data used as input by the third party source, and (3) the

materiality of the item valued and the uncertainties involved. The complexity of some models makes them difficult to assess – i.e., the more opaque or “black box” the model, the more challenging is the assessment for reasonableness of the assumptions made. This requires the effective use of specialists in these cases by the auditor, either in the audit engagement team or as a third party advisor to the team. Thus, appropriate references to requirements associated with the use of experts in the audit are important. It may be the case that separate educational material may prove useful with respect to pricing services or actuarial modeling.

*34. Are there factors that the staff should consider when developing potential audit requirements for testing the reliability and relevance of data independently derived by the auditor or obtained from other sources?*

As appropriate, testing needs to be performed by the audit team in conjunction with specialists on the team –where the associated risks and uncertainties are significant. The quality of the data used in both the derivation of estimates and measures and in the review of the estimates and measures can be quite important and needs to be considered.

*35. Are there other matters relevant to developing a range that a potential new standard could address (e.g., requiring a sensitivity analysis)?*

Sensitivity analysis is important in many cases. Such a requirement, however, is not necessary when the item is not material and uncertainties do not warrant. In other cases, the sensitivity analysis may not be meaningful (such as if the resulting range is large). Accordingly, the auditor should exercise judgment to assess the need for such analysis.

In other cases, considering the nature of the recorded amounts and the auditor’s assessment of the risk associated with those amounts, the auditor may conclude that some other approach is appropriate. In these cases, we support continued application of the principles of AU 336.

*36. Are the potential requirements described above for evaluating audit evidence from events or transactions that occur subsequent to the measurement date through the date of the auditor’s report, appropriate for both accounting estimates and fair value measurements?*

The Committee agrees that the potential requirements are appropriate for both accounting estimates and fair value measurements. The issue of evaluating audit evidence from events or transactions that occur subsequent to the measurement date through the date of the auditor’s report is common and clarity is needed.

*37. Are there additional factors that should be taken into consideration when evaluating the relevance of the audit evidence obtained from events or transactions that occur subsequent to the measurement data through the date of the auditor’s report?*

We believe that a subsequent event or transaction differing from expected through the date of the audit report is not sufficient evidence in itself that the initial estimate was incorrect. There needs to be consideration of data, assumptions, models, estimators and process followed in the context of the significance of the uncertainties associated with the estimates and measurements involved.

*38. Would the potential requirements described above address procedures performed by audit firms that use a centralized testing approach? Would these requirements create issues in practice for smaller firms?*

These requirements could create issues for smaller firms if they do not have access to appropriate specialists. However it is uncommon that smaller firms are involved in companies with items that are inherently complex in nature and are significant in relation to their financial statements. If these companies do not have or cannot use appropriate specialists or specialist knowledge, they should probably not be involved in audits that require such experience and skills.

*39. Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?*

Conceptually, the audit should not use the same third party used by management, even if it is difficult to avoid. A specialist should not be responsible to two principals. Even with the appropriate safeguards, we cannot predict situations where the concerns over using a third party for both the audit and the management can be adequately addressed, such as if there is only one source of pricing service.

*40. Would the factors noted above help the auditor in evaluating the reliability and relevance of evidence obtained from third-party pricing sources? Are there other factors that are applicable in determining the reliability or relevance of evidence obtained from third-party pricing sources?*

The Committee agrees that the factors noted above help the auditor in evaluating the reliability and relevance of evidence obtained from third party pricing sources.

*42. How could a potential new standard differentiate between a third-party pricing source and a specialist?*

The Committee has not identified where there is a need to differentiate between the use of a third party pricing source and a specialist, such as an actuary. They both use data, assumptions, and models in their estimation processes, even though the sources of information and techniques may differ. There are some whose assumptions and methods in their proprietary models can be difficult to identify and understand for those not intimately experienced in such estimates and measurements.

*45. As part of considering the need for change, the staff is reviewing academic literature, including identified papers that synthesize the academic literature. Is there ongoing research or other information that the staff should consider in evaluating the economic aspects of changes in standards for auditing accounting estimates and fair value measurements?*

Actuarial publications such as *Variance* contain numerous papers concerning risk and uncertainty which are referred to in preparing estimates for financial statements. It may also be prudent to review actuarial exam syllabi, as they are updated often, and the Actuarial Standards Board's Actuarial Standards of Practice (ASOP), as the Board reviews and updates several each year, as well as developing new standards.

\*\*\*\*\*

Thank you for this opportunity to provide our views on PCAOB's proposed standard-setting activities related to auditing accounting estimates and fair value measurements. We would be happy to provide you with further assistance as you consider developing this new standard. If you have any questions or would like to discuss these issues in more detail, please contact Lauren Sarper, the Academy's senior policy analyst for risk management and financial reporting, at 202.223.8196 or [sarper@actuary.org](mailto:sarper@actuary.org).

Sincerely,

Leonard Reback, MAAA, FSA  
Chairperson, Financial Reporting Committee  
Risk Management and Financial Reporting Council  
American Academy of Actuaries

November 3, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D. C. 20006-2803

Via email to [comments@pcaobus.org](mailto:comments@pcaobus.org)

Dear Board Members:

The Auditing Standards Committee of the Auditing Section of the American Accounting Association is pleased to provide comments on the PCAOB Staff Consultation Paper ‘Auditing Accounting Estimates and Fair Value Measurements’.

The views expressed in this letter are those of the members of the Auditing Standards Committee and do not reflect an official position of the American Accounting Association. In addition, the comments reflect the overall consensus view of the Committee, not necessarily the views of every individual member.

We hope that our attached comments and suggestions are helpful and will assist the Board. Please feel free to contact the subcommittee chair should the Board have any questions about our comments and suggestions.

Respectfully submitted,

Auditing Standards Committee  
Auditing Section – American Accounting Association

Contributors:

Subcommittee Chair – Mikhail Pevzner, University of Baltimore, (410) 837-5862,

[mpevzner@ubalt.edu](mailto:mpevzner@ubalt.edu)

John Abernathy, Kennesaw State University

Karl Hackenbrack, Vanderbilt University

Jennifer Joe, University of Delaware

Yi-Jing Wu, Case Western Reserve University

### **General Comments**

The Committee commends the PCAOB (“the Board”) for considering an update to the auditing standards dealing with the auditors’ responsibility with respect to audits of fair value estimates and other types of accounting estimates. The following presents a number of specific comments or suggestions, organized by the questions posed by the Board in the Staff Consultation Paper ‘Auditing Accounting Estimates and Fair Value Measurements’ (the Consultation Paper).

**Question 1.** *Does the information presented above reflect aspects of current practice? Are there additional aspects of current practice, of both larger and smaller firms – including centralized testing, the use of third parties, or specific challenges to auditing accounting estimates and fair value measurements - that are relevant to the staff’s consideration of the need for standard setting in this area?*

We note the Board has taken into account the several published academic studies relevant to auditing accounting estimates and fair value measurements. We would like to point out a few more recent academic studies currently in working paper form. Each is a survey and/or interview of experienced auditors with fair value measurement experience. The purpose of each study is to gain insight and codify current practice as well as identify areas in which auditors could use more guidance or the standards could be clarified: Cannon and Bedard (2014), Glover et al. (2014a), Glover et al. (2014b), and Griffith (2014). Where relevant, we reference findings from these studies in our responses to other Consultation Paper questions.

**Question 4.** *Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included within a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?*

We do not believe that combining accounting estimates and fair value measurements into a single standard would be beneficial. The nature of accounting estimates and fair value measurements can be quite different. So too are the skill sets required to provide a reasonable level of assurance. For example, assessing the net realizable value of accounts receivable requires very different tools than assessing the net realizable value of goodwill. Audit engagement teams achieve a reasonable level of assurance of an accounts receivable allowance by considering collection history, credit policies, subsequent cash receipts, and other traditional accepted procedures. Assessing goodwill for impairment can require a very different skill set, one not traditionally found on audit engagement teams and are likely to be assigned to in-house valuation specialists or third party experts whenever the “Step Zero” qualitative analysis fails or the cushion is small. The skill sets are so different there are now specialized Master’s programs dedicated entirely to training valuation specialists at the nexus of accounting and finance, such as the MAcc Valuation program at Vanderbilt University.

**Question 13.** *In circumstances where the company uses information obtained from a third party, are there matters –such as information systems at third parties, controls that management has over the work of third parties, and controls at third parties – not currently addressed in AU sec. 324, Service Organizations, or other standards that the staff should consider?*

PCOAB inspection reports find that auditors rely heavily on the work of third party specialists. Auditors might rely on third party experts because clients frequently use third party experts. For example, Cannon and Bedard’s (2014) survey of experienced auditors finds that for the most challenging and difficult to audit fair value measurement estimates, clients use third party

experts about 60% of the time and auditors consult with external (internal) valuation specialists 5.1% (99%) of the time. While some studies find that valuation experts can increase the reliability of fair value measurements for investors (e.g. Barth and Clinch 1998; Muller and Riedl 2002), the Board might consider cautioning auditors about judgment problems that can occur when using their client's third party specialists' reports. For example Salzsieder's (2014) experimental study finds that if there are no regulatory controls preventing them from doing so, managers will opinion shop for third party experts whose FV estimates enhance the manager's wealth. The Board might consider requiring filers to indicate whether they obtained fair value estimates from multiple third party experts because Salzsieder finds that when auditors are informed that managers have engaged in opinion shopping they exercise more scrutiny over the fair value estimates reported. Thus, that research suggests if there is adequate disclosure, the audit process can be effective in curbing management opportunism.

Joe et al. (2014) provide further evidence about the challenges auditors encounter when using the client's third party expert report in a high client risk scenario. They find that, when the client's internal control risk was high, auditors' testing of the client's fair value estimate was influenced by the amount of information (i.e., the level of detail) included in the third party expert's report. When the client's expert report had a higher amount of quantitative data, auditors focused more audit effort testing the detail and objective inputs, while neglecting to test subjective inputs, to the client's fair value estimate than when the client's expert report had a lower amount of quantitative data. Joe et al. note that because the failure to test the subjective inputs to the clients' fair value measurement, is a recurring deficiency in the PCAOB inspection reports, and audit standards do not support client data driving the nature or extent of auditors' testing, the Board is likely to judge that audit quality is impaired whenever the content of the client's third party expert report influences auditor's testing. Evidence from Joe et al. (2014) also suggests that the Board's might want to rethink its approach of issuing audit alerts as a way to improve or change the way audits are conducted. In a second experiment, Joe et al. found that simply reminding auditors that the PCAOB wants them to test more subjective inputs to fair value estimates does not mitigate auditors' tendency to allow the data in the client expert's report to drive their testing. In that study, after receiving an alert reminding them of the PCAOB's preference for more testing of subjective inputs, the auditors still allocated a higher proportion of audit effort to testing objective inputs when the client's expert report included a higher amount of quantified data than when the report had a lower amount of quantified data. However, the Joe et al. study indicates that the PCAOB alerts do change auditor's testing in important ways. Specifically, reminding auditors that the PCAOB wants them to test more subjective inputs to fair value measurements leads auditors to allocate more total hours to test the client's fair value estimate, which leads to more hours to test subjective inputs to fair value estimates and greater use of the CPA firm's in-house valuation specialists.

Research indicates the Board should consider cooperating with the SEC to ensure that auditors have sufficient access to the underlying data used to support the client's fair value estimates. Cannon and Bedard (2014) and Glover et al. (2014a) report that auditors often are frustrated by an inability to access key data when evaluating the inputs to fair value estimates prepared by third party experts (e.g., pricing services). For instance, Cannon and Bedard (2014) find that experienced audit experts reported that in 23.2% of the most challenging audit cases, the



client's third party expert used a proprietary valuation model, which auditors were prohibited from examining.

While there are no studies that examine directly the impact of the quality of the third party expert's internal control on audit judgment, studies examining how the client's internal controls influence audit judgment offer some insights. Two studies find that auditors attend to the level of the client's internal controls when making fair value judgments and that attention to the client's internal controls can impact audit effectiveness. Joe et al. (2014) find that when the client's entity-level internal controls were strong, auditors did not differentiate in the nature and extent of testing of the client's fair value estimate contingent on the contents of the third party expert report. However, when the client's entity-level controls were weak, the nature and extent of auditors' testing of the client's fair value estimate was influenced by the content of the third party expert report. Brown-Liburd et al. (2014) find that when the client's internal controls are effective auditors assess the inherent risk of misstatement of the fair value estimates to be low and judged the client's third party expert to be competent and reliable. That result did not hold when the client's internal control was ineffective. Thus, their results suggest that reliance on the client's internal control strength can lead to over-reliance on the third-party expert. These studies suggest that if auditors had information about third-party experts' internal controls it could negatively influence audit quality when evaluating the client's fair value measurement.

**Question 14.** *Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other factors that would be relevant in the auditor's evaluation of the degree of complexity of judgment in the recognition or measurement of an accounting estimate or fair value measurement (e.g., the use of a third party for the determination of a price)?*

Several recent studies surveying auditors (managers, senior manager, and partners) suggest that it is not uncommon for auditors to encounter wide measurement uncertainty when auditing fair value measurements such that the range of estimation uncertainty exceeds the materiality threshold. For instance, Cannon and Bedard (2014) finds that over 70 percent of audit managers and senior managers surveyed report auditing complex fair value measurements where the measurement uncertainty exceeds materiality. While the Consultation Paper points out that "wide range of measurement uncertainty" increases the "degree of complexity or judgment" of an accounting estimate, and thus risk, it does not provide clear guidance to auditors regarding how they should respond when dealing with estimates with extreme measurement uncertainty. Moreover, Glover et al. (2014a) finds that 93 percent of audit partners with fair value measurement expertise surveyed are in favor of additional clarity and guidance from standard-setters and regulators regarding auditing of fair value measurements. In particular, the audit partners report wanting to see more guidance regarding what constitutes an acceptable reasonable range of estimation uncertainty. While the committee believes that the Board's proposed amendments to paragraph 71 of Auditing Standards No. 12 are appropriate for both accounting estimates and fair value measurements, we encourage the Board to consider including additional guidance and clarification for auditors to help them to determine the appropriate responses when wide measurement uncertainty exists. Further, with respect to other relevant factors auditors should consider in their evaluation of complexity or judgment in the recognition or measurement of an accounting estimate, and in turn significant risks, the committee believes the Board should consider adding indicators of possible management bias

as another factor auditors should consider (such guidance would be consistent with guidance provided in ISA 540).

**Question 19.** *Should a potential new standard include specific audit procedures related to auditing disclosures of accounting estimates (e.g., disclosures on levels within the fair value hierarchy)?*

Management's classification of fair value assets under ASC 820 is scrutinized by investors and, consequently, by auditors. When an argument can be made to classify a particular security as either a Level 2 or a Level 3 security (i.e., the security's classification is "at-margin") there is room for managerial discretion and opportunism in fair value classification decisions. The market considers Level 3 inputs to be less reliable and riskier than Level 2 inputs, and accordingly, ASC 820 requires more disclosure for Level 3 assets. Given this increased disclosure requirement, and the fact that the market discounts Level 3 securities more than Level 2 securities, companies have incentives to use a Level 2 over a Level 3 classification to avoid being punished by the market (e.g., Laux and Leuz 2009; Laux and Leuz 2010). For example, studies find that Level 3 assets have greater information asymmetry when compared to Level 2 assets (Riedl and Serafeim 2011), the market discounts Level 3 securities significantly more than Level 2 securities (e.g., Beck 2012; Cullinan and Zhang 2012; Song et al. 2010; Kolev 2009), and that the discount observed for Level 3 securities ranges from 20 to 30 percent of reported assets (Laux and Leuz 2010). Because fair value classification is important to investors, auditors dedicate significant effort in conducting ASC 820 "leveling" procedures<sup>1</sup> to evaluate the appropriateness of management's classifications. Earley et al. (2014) note that auditors have a significant role in assuring the appropriateness of these classifications because the reasoning underlying management's classifications is not disclosed publicly and because there are so few disclosures required for Level 2 securities.

Earley et al. (2014) find that for at-margin securities, auditors are more skeptical of management's classification choice when the client chooses the incentive-aligned Level 2 classification than when management chooses the Level 3 classification, which is not aligned with its incentives. Earley et al. (2014) suggest that auditors have internalized the warnings by the PCAOB to scrutinize management's fair value reporting, and therefore question classification choices that appear aligned with management's incentives. Given the potential for managerial opportunism, and because the classification hierarchy is so important to market participants, the Board should consider cooperating with the SEC to encourage more disclosures around both Level 2 and Level 3 assets and to consider whether more disclosure about management's rationale for the ASC classification would be informative to investors.

Recent inspection reports (e.g. 2013 Inspection of KPMG and 2013 Inspection of PwC) suggest that auditors might have difficulty with other aspects of the classification task. For example, the 2013 KPMG inspection report (PCAOB (2014a), finds deficiencies in evaluating the internal controls over Level 2 versus Level 3 classifications (Issuer A) and the classification of Level 2 securities (Issuer G). The 2013 PwC inspection report (PCAOB 2014b), notes deficiencies in testing the disclosures for hard-to-value Level 2 and Level 3 securities (Issuer H). The

---

<sup>1</sup> ASC 820 leveling refers to auditors' fair value test work to determine whether management's classification of a security as Level 2 or Level 3 is appropriate and evaluate management's reasoning underlying the classification decision.

importance of auditors' role in providing assurance over the ASC 820 classifications and the findings in the recent firm inspection reports indicate that additional Board guidance related to fair value classifications would be helpful to auditors and the market participants who value auditors' assurance.

**Question 22.** *Are there specific factors that affect the auditor's selection of approaches related to testing accounting estimates? What considerations would be appropriate for the auditor to take into account when determining which approach (or combination of approaches) for testing accounting estimates should be selected?*

Existing research finds some differences in terms of auditors' use of the three substantive testing approaches available. Griffith et al. (2014) interviewed audit partners and senior managers with experience auditing complex estimates and find that auditors report frequently using the first substantive testing approach: testing management's process; however, auditor report infrequently developing independent estimates and/or review subsequent events and transactions. On the other hand, two more recent surveys of experienced auditors by Cannon and Bedard (2014) and Glover et al. (2014b) find that auditors report frequently using all three approaches or a combination of approaches when responding to significant risks. In light of differences in current practice as shown in the existing research, the Board should consider providing more guidance regarding instances in which auditors should use more than one substantive testing approach, in particular when developing an independent estimate is necessary. The Board might also want to consider providing additional guidance regarding necessary substantive testing approach(es) when management's estimates are determined by a third-party pricing service or valuation specialist when compared to the estimates derived directly from management or its internal specialists. Further, the Board should consider the approach taken in ISA 540 by providing specific additional substantive procedures necessary to respond to "significant risks."

**Question 28.** *Would a requirement for the auditor to determine which assumptions used by management are significant assumptions present difficulties in practice? Should the staff consider a requirement for the auditor to identify assumptions not used by management which might be important for recognition or measurement of this accounting estimate?*

We believe that it is a good idea for the auditor to more explicitly identify assumptions management explicitly or implicitly uses in tests of reasonableness of the accounting estimates. It certainly would not be onerous, but rather will lead to a more clear identification of how the auditor assesses reasonableness of the management's assumptions and the estimate as a whole. More clear documentation of these assumptions in the working papers has the potential to reduce the likelihood that the audit work would be subject to the future criticism during PCAOB inspection process, as an auditor's judgment process on the matter will be more evident. More clear documentation of assumptions by management will help identify sources of biases and errors in the relevant estimates (Martin et al, 2006). Prior research documents that "fair value and other estimates based on management's subjective models and inputs contain estimation uncertainty or imprecision that is many times greater than materiality" (Christensen et al, 2002). For accounting estimates more critical to the audit process (such as testing of the reasonableness of the bad debt or inventory obsolescence reserves), it is probably best for the auditor to document how she/he assesses the estimates' sensitivities to different assumptions involved and more clearly define the range of the available accounting estimates, depending on these assumptions. This is especially important in light of the recent research documenting that

the auditor is more likely to be switched when a client has to record a goodwill write down (Ayres et al, 2014). Moreover, the standard should probably stipulate that the auditor clearly explain in her work papers why she concluded that certain assumptions are more reasonable or not.

With respect to the assumptions not explicitly considered by management, we believe it is sufficient that the auditor only considers other assumptions which could have a material impact on the estimate and provide clear explanations why the auditor believes this to be the case. If management does not concur that these assumptions need to be considered, an auditor should clearly document perceived sources of this disagreement and assess whether they give rise to a potential material misstatement.

**Question 29.** *Is the potential requirement suggested above clear and appropriate for both accounting estimates and fair value measurements? Are there other specific characteristics of significant assumptions that should be included?*

We recommend the following clarifications:

- 1) The Board may consider clarifying what it means by unobservable data (i.e. whether here it follows the definition used in determining whether a particular investment is classified as Level 3 under the ASC 820 hierarchy).
- 2) In addition, it is not entirely clear what the Board means by [assumptions] that “are based on the company’s intent and ability to carry out specific courses of action”? If the Board is alluding to the fact that the audit client can manipulate assumptions in order, say, to manage earnings to meet earnings targets, then more explicit language would be helpful. The assessment of risk of opportunistic manipulation of the assumptions should be done in the context of the overall assessment of risk of material misstatement (RMM) and presence of “red flags” suggesting higher likelihood of RMM.<sup>2</sup>
- 3) Perhaps, the Board could also consider requiring more explicit auditor’s consideration of any assumption that could cause material changes in the accounting estimate, and where the range of possible outcomes is likely to be uncertain. For example, for Level 3 investments without available liquid spot markets (such as private equity holdings), a wide variety of discount rates can be used to arrive at a valuation estimate. Using this example, the Board might want to recommend that auditors’ working papers clearly include documentation on the range of available discount rate options and explain exactly why they agree on a particular discount rate choice.

**Question 30.** *Are the suggested factors described above appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluation the reasonableness of significant assumptions relevant to accounting estimates?*

We believe that the list of factors, while reasonable, appears a bit too general. For example, it is unclear what is meant by “relevant industry, regulatory....factors, including economic conditions”. We believe that the standard, when released, needs to specify clearly under what circumstances the auditor needs to be particularly attentive in testing managerial assumptions (e.g. similar to the list of fraud risk factors stipulated in SAS 99/AU 316). We further believe

---

<sup>2</sup> Many academic studies document that managers can manipulate assumptions in accounting estimates. For example, Bergstresser et al (2006) document that managers manipulate assumed long-term rates of return in pension assumptions right before acquisitions and stock options exercises.

that the proposed standard needs to emphasize that the auditor needs to develop good sense of whether management has a good track record of deriving assumptions that, ex post, are highly correlated with ultimate economic outcomes. In particular, if an auditor observes that management's assumptions are persistently off mark and are, say, optimistically biased, the auditor needs to be particularly skeptical towards those assumptions in the future.

**Question 36.** *Are the potential requirements described above for evaluating audit evidence from events or transactions that occur subsequent to the measurement date through the date of the auditor's report, appropriate for both accounting estimates and fair value measurements?*

Yes. We do believe that the guidance provided by the Board is appropriate for accounting estimates and fair value measurements. Martin et al (2006) note that the many of the assumptions used in measuring fair value are similar to those used to generate other accounting estimates. That is, both fair value measurement and estimates attempt to quantify the future outcome of one or more past transactions or events. With regard to subsequent events, AU Section 560 requires auditors to evaluate events and transactions subsequent to the end of audit fieldwork, but prior to the issuance of the auditor's report. Therefore, evidence obtained from these events and transactions can provide guidance on both fair value measurements and accounting estimates as of the balance sheet date.

**Question 37.** *Are there additional factors that should be taken into consideration when evaluating the relevance of the audit evidence obtained from events or transactions that occur subsequent to the measurement date through the date of the auditor's report?*

As mentioned above, subsequent events can provide evidence about fair value measurements and accounting estimates at the balance sheet date. Specifically, these subsequent transactions can provide a direct substantiation of estimates and fair value measurements. As noted in the potential standard, however, some subsequent events or transactions could reflect changes in the company's circumstances or economic condition changes occurring after the balance sheet date and would not constitute audit evidence about the fair value measurement or estimate at the balance sheet date. As such, it is important to carefully consider the nature of the transaction when employing the use of subsequent events to evaluate fair value measurements and accounting estimates. For example, the sale of land held for investment shortly after fiscal year end can provide sufficient evidence about its net realizable value (an accounting estimate). However, the fair value measurement of complex financial instruments, specifically Level 3 assets, might not be evaluated through any subsequent transactions. Glover et al (2009) note that accounting firms use standards to develop audit methodologies, therefore, we believe it would be beneficial in the updated standards to emphasize the limited value of subsequent events in auditing fair values and accounting estimates. Griffith et al (2014) note that the few firms use subsequent events as a primary means of audit evidence for accounting estimates and fair value measurements. On the other hand, Bedard et al. (2014) and Glover et al. (2014) find that auditors report the use of subsequent events as evidence when auditing complex estimates and fair value measurements. We believe that the value of subsequent events as a supplement or confirmation should not be ignored by audit firms.

**Question 38.** *Would the potential requirements described above address procedures performed by audit firms that use a centralized testing approach? Would these requirements create issues in practice for smaller firms?*

As noted by Griffith et al (2014), auditing fair value measurement and accounting estimates requires a high level of professional skepticism and valuation knowledge. Because auditors often lack valuation knowledge, they often rely on third-party and in-house specialists. This guidance should extend to firms that use a centralized testing approach as well. While the use of external valuation specialists, including a centralized or national-level pricing desk could have positive effect on audit quality through increased reliability, it could have a negative effect on audit quality if auditors overly rely on specialists. The more important issue is that the audit team gather appropriate evidence to audit fair value measurements and accounting estimates. As noted by Martin et al. (2006, p. 288) it is important for auditors to understand “valuation models, significant assumptions, audit procedures, and possible biases” when auditing fair value measurements and accounting estimates.

Recent research provides evidence that greater use of fair value measurements is associated with higher audit fees (Etteredge et al 2014). Requiring the use of an independent third party could differentially impact smaller firms that do not have access to a centralized pricing desk. We believe that mandating the use of an independent (third-party) specialist is not as important as emphasizing the use of professional skepticism and judgment about estimates provided by management. This may involve employing a specialist to gather evidence sufficient to audit such accounts.

**Question 39.** *Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?*

As noted by Bratten et al. (2013), the PCAOB, in its inspection reports has been less concerned about the identity of the third party specialist than in the auditors’ overreliance on the assumptions made by management and that specialist. It is clear that third parties can provide benefit to financial statement users because a 2010 survey by Deloitte finds that 73 percent of asset managers surveyed believe pricing services are reliable.

We believe that professional skepticism should be employed in the use of third-party specialists, whether the same one employed by management or a different one. If the auditor carefully evaluates the techniques, assumptions and other inputs to valuation models in order to address the reasonableness of managements’ estimates, then the use of a third party can be beneficial (SEC 2011).

## References:

- Ayres, D., T. Neal, L. Reid, and J. Shipman (2014). Are Fair Value Estimates a Source of Significant Tension in the Auditor-Client Relationship? Evidence from Goodwill Accounting. Working Paper, University of Tennessee. Available on SSRN at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2474674](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2474674)
- Beck, M. (2012). Do Investors Negatively Value Complex Assets? Working paper, Michigan State University.
- Bergstresser, D., M. Desai, and J. Rauh (2006). Earnings Manipulation, Pension Assumptions, and Managerial Investment Decisions. *Quarterly Journal of Economics*, 121(1), 157-195

- Bratten, B., L. Gaynor, L. McDaniel, N. Montague, and G. Sierra (2013). The Audit of Fair Values and Other Estimates: The Effects of Underlying Environmental, Task, and Auditor-Specific Factors. *Auditing: A Journal of Practice & Theory*, 32 (Supplement 1), 7-44.
- Brown-Liburd, H., S. Mason, and S. Shelton (2014). The Effect of Reliance on Third-Party Specialists under Varying Levels of Internal Control Effectiveness on the Audit of Fair Value Measurements. Working paper, Rutgers University.
- Cannon, N., and J. C. Bedard (2014). Auditing Challenging Fair Value Measurements: Evidence from the Field. Working paper, Texas State University and Bentley University. Available at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2220445](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2220445)
- Christensen, T., S. Glover, and D. Wood (2006). Extreme Estimation Uncertainty in Fair Value Estimates: Implications for Audit Assurance. *Auditing: A Journal of Practice & Theory* 31(1), pp. 127-146.
- Cullinan, C. P., and X. Zhang (2014). Valuation Skepticism, Liquidity Benefits and Closed-End Fund Premiums/Discounts: Evidence from Fair Value Disclosures. *Accounting & Finance*, 54 (3), 729-751.
- Deloitte (2010). *Springing Forward: The Eighth Annual Fair Value Pricing Survey*. Deloitte Development LLC. Available at: [http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/FSI/us\\_fsi\\_im\\_fairvalue\\_march10.pdf](http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/FSI/us_fsi_im_fairvalue_march10.pdf).
- Earley, C., V. B Hoffman, and J. R. Joe (2014). Are Auditors Skeptical of Management's Level 2 versus Level 3 Fair Value Classification Judgments? Working Paper, Providence College, University of Pittsburgh, and University of Delaware. Available at SSRN: <http://ssrn.com/abstract=2119720>
- Ettredge, M., Y. Xu, and H. Yi (2014). Fair Value Measurements and Audit Fees: Evidence from the Banking Industry. *Auditing: A Journal of Practice & Theory*, 33 (3), 33-58.
- Glover, S. M., D. Prawitt, and M. Taylor (2009). Auditing Standards Setting and Inspection for U.S. Public Companies: A Critical Assessment and Recommendations for Fundamental Change. *Accounting Horizons*, 23 (2), 221-237.
- Glover, S. M., M. Taylor, and Y. Wu (2014a). The Gap Between Auditing Experts' Performance and Regulatory Expectations when Auditing Complex Estimates and Fair Value Measurements: Causes and Potential Solutions, Working Paper, Brigham Young University and Case Western Reserve University. Available at SSRN: <http://ssrn.com/abstract=2504521>
- Glover, S. M., Taylor, M., and Y. Wu (2014b). Challenges in Auditing Fair Value Measurements and Other Complex Estimates: Insights from Audit Partners, Working Paper, Brigham Young

University and Case Western Reserve University. Available at SSRN:  
<http://ssrn.com/abstract=2515807>

Griffith, E. E. (2014). How Do Auditors Use Valuation Specialists When Auditing Fair Values? Working Paper, The University of Wisconsin.

Griffith, E E., J. Hammersley, and K. Kadous (2014). Auditing Complex Estimates: Understanding the Process Used and Problems Encountered. *Contemporary Accounting Research*, forthcoming.

Joe, J., S. Vandervelde, and Y. Wu (2014). Use of Third Party Specialists' Reports When Auditing Fair Value Measurements: Do Auditors Stay in their Comfort Zone? Working paper, University of Delaware, University of South Carolina, and Case Western Reserve University. Available at SSRN: <http://ssrn.com/abstract=2461858>

Kolev, K. (2009). Do Investors Perceive Marking-To-Model as Marking-to-Myth? Early Evidence From FAS 157 Disclosure. Working paper, Yale University.

Laux, C. and C. Leuz (2009). The Crisis of Fair-Value Accounting: Marking Sense of the Recent Debate. *Accounting, Organizations and Society*, 34, 826-834.

Laux, C. and C. Leuz (2010). Did Fair-value Accounting Contribute to the Financial Crisis? *Journal of Economic Perspectives*, 24(1), 93–118.

Martin, R. D., J. Rich, and T. Wilks (2006). Auditing Fair Value Measurements: A Synthesis of Relevant Research. *Accounting Horizons*, 20 (3), 287-303.

Public Company Accounting Oversight Board (2014a). *Report on 2013 Inspection of KPMG LLP*. September 24. Washington, DC: PCAOB.

Public Company Accounting Oversight Board (2014b). *Report on 2013 Inspection of PricewaterhouseCoopers LLP*. June 19. Washington, DC: PCAOB.

Riedl, E. J. and G. Serafeim (2011). Information Risk and Fair Value: An Examination of Equity Betas and Bid-Ask Spreads. *Journal of Accounting Research*, 49, 1083-1122.

Salzsieder, L (2014). Fair Value Opinion Shopping. Working paper, University of Missouri - Kansas City.

Securities and Exchange Commission (2011). *Disclosure and Corporate Governance: Financial Reporting Challenges for 2011*. The Harvard Law School Forum on Corporate Governance and Financial Regulation. Available at: <http://blogs.law.harvard.edu/corpgov/2011/03/15/sec-disclosure-and-corporate-governance-financial-reporting-challenges-for-2011/>



Song, C. J., W. B. Thomas, and H. Yi (2010). Value Relevance of FAS No. 157 Fair Value Hierarchy Information and the Impact of Corporate Governance Mechanisms. *The Accounting Review*, 85 (4), 1375-1410.

November 10, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803

Via website submission: [comments@pcaobus.org](https://comments@pcaobus.org)

Re: Staff Consultation Paper – *Auditing Accounting Estimates and Fair Value Measurements*

To Whom It May Concern:

The American Bankers Association (ABA<sup>1</sup>) appreciates the opportunity to comment on the Staff Consultation Paper – *Auditing Accounting Estimates and Fair Value Measurements* (Consultation Paper). Accounting estimates and fair value measurements are pervasive throughout bank financial statements, mainly through the allowance for loan and lease losses and the measurement of other financial assets and liabilities. Not only do the accounting estimates and fair value measurements made within bank financial statements involve significant judgment, but third-party specialists and pricing services are often used by banks of all sizes. Further, the Financial Accounting Standards Board (FASB) is expected to approve revisions to standards that will require longer and more judgmental forecasts. Therefore, any revision to the auditing standards related to accounting estimates and fair value measurements will have a significant impact on audits of banking institutions.

With this in mind, common sense and cost-effectiveness must be the guiding principles that guide the Board as it evaluates the issues discussed in the Consultation Paper. While the Consultation Paper notes that the highest number of deficiencies in audits of public companies is in the area of fair value measurement, the Consultation Paper is unclear about the types of deficiencies the staff wishes to address. As a result, bankers believe auditors will be required to unnecessarily increase audit procedures that do not lead to better audits. The result will be more expensive auditing services without sufficient return. If the Board decides to proceed with a formal proposal, we recommend these important guiding principles:

- A formal proposal to revise auditing standards should clarify the cost-effectiveness of additional audit procedures and the resulting standards should meet the cost-benefit test.
- Standards addressing specialists, pricing services, and other third-party sources, must recognize the extent of their use in the banking industry.
- Standards addressing specialists, pricing services, and other third-party sources must adjustable to the continuously changing markets, processes, and accounting standards.

---

<sup>1</sup> The American Bankers Association represents banks of all sizes and charters and is the voice for the nation's \$14 trillion banking industry and its two million employees.

Public Company Accounting Oversight Board

Washington, DC

PCAOB Staff Consultation Paper *Auditing Accounting Estimates and Fair Value Measurements*

November 10, 2014

Page 2

- Standards addressing specialists, pricing services, and other third-party sources must be flexible enough to make sense for audit firms of all sizes.

In fact, some of the proposed requirements, if approved, may end up requiring some banks to completely rethink their processes to procure specialists and third-party pricing services. We believe this will severely impact smaller banks and the external auditors they use. For example, the use of local auditing firms by community banks may need to be re-evaluated, as local auditing firms may not necessarily be knowledgeable of the various estimation methods “accepted” within all aspects of the banking industry and also may not have access to the extent of third-party pricing services that would avoid costly testing of the audit evidence as if it were produced by the company. While bankers believe that efficiencies can be achieved through clarification of the understanding of specialists and third-party services and the auditing guidance provided to them, the Consultation Paper causes banks to ask “Why not just hire two auditors?”

In the Appendix, we respond to selected questions posed in the Consultation Paper. However, our main concerns are as follows:

**A formal proposal to revise auditing standards should clarify the cost-effectiveness of additional audit procedures and the resulting standards should meet the cost-benefit test.**

Both bankers and investors want audits that are *both* reliable and cost-effective. Because the extent of anticipated changes in auditing procedures is not clear in the Consultation Paper, it is difficult to provide quality feedback on this point. Many audit deficiencies (those that merely reflect inadequate documentation), do not necessarily result in misstated financial statements or disclosures, and, at some level, increased costs relating to expanded audit procedures could be viewed as wasting resources.

In the vast majority of cases, the current level of audit work performed on estimates of the allowance for loan and lease losses (ALLL) and on fair value estimates is extensive. Increasing the required work for what may be little overall incremental audit assurance is counterproductive. As the PCAOB progresses toward a possible revision to auditing standards, we recommend that a framework for a risk-based cost/benefit analysis of anticipated additional procedures be performed that would apply to banks and audit firms of all sizes. Cost-effectiveness our primary concern when evaluating any proposed change, and it is central to our thought process for each of below.

**PCAOB must understand the extent of the use of specialists, pricing services, and other third-party sources in the banking industry prior to issuing a final standard.**

Banks of all sizes – from the smallest of community banks to the largest international banks – use service providers (specialists, pricing services, and other third-party sources) to obtain important information for financial instrument valuations as well as for key business processes and management purposes. The Consultation Paper appears to address concerns related specifically to financial instruments. However, in addition to valuation and pricing specialists mentioned in the Consultation Paper, third-parties may include:

- Real estate valuation appraisers: Fair value estimates of underlying collateral are often used by bankers in order to determine and measure impairment on the related loans. Collateral value estimates are also often the basis for initial underwriting decisions, which are also important drivers for the ALLL.
- Actuarial consultants: Similar to companies in other industries, actuarial consultants are often used to address key issues in pension accounting and certain insurance-related products.
- Asset/Liability Management (ALM) consultants: ALM consultants are often currently used to provide amortization of deferred loan fees and costs, in valuing core deposit intangibles, and in pricing certain debt securities. As noted in more detail below, ALM consultants may, in the future, also be used to provide estimates related to core deposit disclosures.
- Banking regulators: Banking institutions are subject to rigorous examinations performed by regulators as part of their supervisory and compliance responsibilities. Bank examination teams evaluate internal controls and safety and soundness issues, including valuation and measurement of impairment on loans and debt securities. Regulators also often collect and maintain peer data that become the basis for analytical review procedures performed during substantive testing of the ALLL for book purposes. The expansion of regulatory disclosure requirements (for example, under Pillar 3) may broaden such peer analysis to other key banking issues. Testing and maintenance of such data can well be considered comparable to that performed by specialists and third-party service providers.

While the Consultation Paper appears to treat third-party pricing sources differently from specialists, it is not clear how to determine the difference between the two. For example, real estate appraisers normally provide comparable sales prices of similar properties (as a third-party pricing service might), but would also provide other analyses as a basis for adjustment. Given the proposal to require auditors to test assumptions developed by a company's specialist as if it were produced by the company, the definition of "specialist" is critical and could result in very significant and unnecessary costs in the audit process. For example, we fear that market data underlying appraisals may require source testing (and testing of those underlying sources). Specialists who base their estimates on third-party data services (for example, those who provide estimates of core deposit intangibles) may also be subject to significant additional testing. Such testing is unnecessarily onerous.

We further advise the PCAOB to review whether, in many situations, regulatory bank examiners may qualify as specialists in their review of the ALLL and of other financial instruments issues. For all practical purposes, we believe that the perspectives of the bank examiners and auditors are similar and many of the same substantive tests are currently used by both parties, resulting in

significant redundancy in the audit process. With this in mind, we recommend that PCAOB address how the work of regulatory examiners fit into the audit.

**Standards addressing specialists, pricing services, and other third-party sources must be adjustable to the continuously changing markets, processes, and accounting standards.**

By their nature, markets are decentralized and ever-changing. As a result, processes to estimate values, including fair values, are likely to change over time. The recent financial crisis has also taught us that so-called “black swan” scenarios can happen and that bankers, regulators, and auditors must be prepared to perform under those circumstances. Various regulations and regulatory responses to the financial crisis can further affect the inputs to fair values.

1. It is preferable to make incremental changes to both the standard for accounting estimates and the standard for fair value measurements, rather than comprehensively addressing both issues in one standard. We believe that the reporting objectives of accounting estimates and those of fair value measurements (and, therefore, the required audit procedures) are sufficiently different to maintain separate auditing standards.<sup>2</sup> As a practical matter, we further believe that a comprehensive standard will take too long, subjecting the new standard to an obsolete status upon issuance.
2. Recent trends related to centralized testing approaches are relevant factors related to any prospective auditing standard related to testing of third-party sources. However, we expect further evolution of pricing to occur, including consolidation of pricing vendors and use of sub-vendors, which could further complicate the use of third-party sources. For example, with consolidation of the pricing industry, it becomes more likely that the servicer used by the auditor will be the same as the servicer used by the bank. On the other hand, if sub-servicing is utilized by a pricing service, it may become more likely that the bank and the auditor are (through the pricing service’s use of sub-servicer) using the same pricing service. In both cases, it appears that the auditor will be required to test the data as though it were generated by the bank.

The new standard must be clear as to “how far does the auditor need to go?” in determining whether to treat the related work as though it was produced by the company. The answer to that question will affect how bankers procure such services, as they will naturally seek the most cost-efficient path. This will significantly impact community banks and their auditors the most, as the availability of qualified auditing firms and third-party sources are often limited, based on the specific markets that are served. With this in mind, ABA recommends that PCAOB reject the proposal that if the third-party source used by the auditor is the same as the third-party source used by the company, the auditor

---

<sup>2</sup> Using loans as an example, the objective of fair value measurement emphasizes the price a bank will obtain in order to sell the specific loan at a specific point in time. The objective of the accounting estimate in valuing any impairment on the loan emphasizes the amounts a bank expects to lose, given its specific expertise and knowledge of the borrower, over its holding period.

should evaluate the audit evidence obtained as if it were produced by the company. In this case, a one-size-fits-all approach will not work.

3. New standards should address practical aspects of expected changes to accounting standards that place heavy emphasis on estimates and measurement techniques. New accounting standards expected to be approved within the next year by FASB include:
  - a. The estimate of the allowance for loan and lease losses (ALLL): The new ALLL estimate will involve significant long-term forecasts of future losses based on an expected life of a portfolio.
  - b. Disclosure of loans at their exit price-based fair value: While disclosures of the fair value of loans is not new, most banks currently measure them at an “entrance price-based” fair value, as the vast majority of many loans – especially those loans held by community banks – are neither sold nor are there consistent and reliable transactions that would provide inputs to determine exit prices.
  - c. Disclosure of certain core deposit information: Depending on the final definition of “core deposit”, the new disclosure may require significant forecasts of economic activity, interest rates, and customer behavior. Such forecasts would be required if macroeconomic-based “surge” balances that exist within many core deposit accounts must be excluded from gross core deposit balances.

These new standards will introduce new and unproven methods of estimation and measurement into the industry and the auditing profession. With this in mind, we recommend that PCAOB reject any requirement for the auditor to evaluate methods to develop accounting estimates that are “accepted within the company’s industry”. In addition to the practical problems of defining “industry acceptance” (especially under new accounting standards), estimation methods are expected to continuously evolve. Current practice, for example, in estimating the ALLL may vary based on company size. Further, based on how “method” is defined, methods can vary by region or even based on individual regulatory examination teams. Therefore, practical issues also face any such requirement.

**Standards addressing specialists, pricing services, and other third-party sources must flexible enough to make sense for audit firms of all sizes.**

Several of the proposed standards appear suitable as “best practices” to consider. However, in many cases, they might lead to inefficient testing that may unintentionally lead to inappropriate audit decisions. Further, such requirements will put on smaller auditing firms will have an adverse impact on the audits of community banking institutions. Therefore, we recommend that PCAOB reject standards that require:

Public Company Accounting Oversight Board

Washington, DC

PCAOB Staff Consultation Paper *Auditing Accounting Estimates and Fair Value Measurements*

November 10, 2014

Page 6

- Assessing all significant assumptions, including those not identified by management: Many auditing firms, large and small, will struggle to efficiently identify the population of assumptions, evaluate the relevance and significance of each assumption.
- Testing of information provided by a bank-hired specialist as though the information was produced by the bank: Smaller auditing firms with less specific expertise will struggle in the required testing and likely increase auditing fees for little or no return to the audited bank. As the work of specialists is often produced using proprietary models developed by the specialist, such required procedures may not be possible.

As just noted, the proposed standards appear to suggest best practices to consider in many circumstances. However, they should not be requirements during the audit.

Thank you for your attention to these matters and for considering our views. Please feel free to contact me ([mgullette@aba.com](mailto:mgullette@aba.com); 202-663-4986) if you would like to discuss our views.

Sincerely,



Michael L. Gullette



## **Appendix: Answers to Specific Questions Posed in the Consultation Paper**

### **Certain Aspects of Current Practice**

**Question 2:** What other issues relevant to the need for standard setting should be considered by the staff?

**ABA Response:** By their nature, markets are decentralized and ever-changing. As a result, processes to estimate values, including fair values, will be expected to change. Recent trends related to centralized testing approaches are relevant factors related to any prospective auditing standard related to testing of third-party sources. However, we expect further evolution of pricing to occur, including consolidation of pricing vendors and use of sub-vendors, which could further complicate the use of any third-party source. For example, within consolidation of the pricing industry, it becomes more likely that the servicer used by the auditor will be the same as the servicer used by the bank. On the other hand, if sub-servicing is utilized by a pricing service, it may become more likely that the bank and the auditor are (through the pricing service's use of sub-servicer) using the same pricing service. In both cases, it appears that the auditor will be required to test the data as though it were generated by the bank.

### **Overview of the Approach Considered by the Staff**

**Question 4:** Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included with a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?

**ABA Response:** It is preferable to make incremental changes to both the standard for accounting estimates and the standard for fair value measurements, rather than comprehensively addressing both issues in one standard. The reporting objectives of accounting estimates and those of fair value measurements (and, therefore, the required audit procedures) are sufficiently different to maintain separate auditing standards<sup>3</sup>. As a practical matter, we further believe that a comprehensive standard will take too long, subjecting the new standard to an obsolete status upon issuance.

In any new standard, it is critical that there is clarity as to the extent of and reason for additional procedures that may be required. Most identified audit deficiencies appear to result from insufficient skepticism or supporting documentation and not from a lack of testing of underlying data.

---

<sup>3</sup> Using loans as an example, the objective of fair value measurement emphasizes the price a bank will obtain in order to sell the specific loan at a specific point in time. The objective of the accounting estimate in valuing any impairment on the loan emphasizes the amounts a bank expects to lose, given its specific expertise and knowledge of the borrower, over its holding period.



Public Company Accounting Oversight Board

Washington, DC

PCAOB Staff Consultation Paper *Auditing Accounting Estimates and Fair Value Measurements*

November 10, 2014

Page 8

**Question 5:** Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition that the staff should specifically take into account in developing a potential new standard?

**ABA Response:** New standards should address practical aspects of expected changes to accounting standards that place heavy emphasis on estimates and measurement techniques. New accounting standards expected to be approved within the next year by FASB include:

- The estimate of the allowance for loan and lease losses (ALLL): The new ALLL estimate will involve significant long-term forecasts of future losses based on an expected life of a portfolio.
- Disclosure of loans at their exit price-based fair value: While disclosures of the fair value of loans is not new, most banks currently measure them at an “entrance price-based” fair value, as the vast majority of many loans – especially those loans held by community banks – are neither sold nor are there consistent and reliable transactions that would provide inputs to determine exit prices.
- Disclosure of certain core deposit information: Depending on the final definition of “core deposit”, the new disclosure may require significant forecasts of economic activity, interest rates, and customer behavior. Such forecasts would be required if macroeconomic-based “surge” balances that exist within many core deposit accounts must be excluded from gross core deposit balances.

These new standards will introduce new and unproven methods of estimation and measurement into the industry. With this in mind, we recommend that PCAOB reject any requirement for the auditor to evaluate methods to develop accounting estimates that are “accepted within the company’s industry”. In addition to the practical problems of defining “industry acceptance” (especially under new accounting standards), estimation methods are expected to continuously evolve. Current practice, for example, in estimating the ALLL may vary based on company size. Further, based on how “method” is defined, methods can vary by region or even based on individual regulatory examination teams. Therefore, practical issues also face any such requirement.

**Question 9:** Are there considerations relevant to auditing accounting estimates and fair value measurements including other regulatory requirements specific to certain industries that the staff should take into account?

**ABA Response:** Banking institutions are subject to rigorous examinations performed by regulators as part of their supervisory and compliance responsibilities. Bank examination teams evaluate internal controls and safety and soundness issues, including valuation and measurement of impairment on loans and debt securities. Regulators also often collect and maintain peer data that become the basis for analytical review procedures performed during substantive testing of

the ALLL. The expansion of regulatory disclosure requirements (for example, under Pillar 3) may broaden such peer analysis to other key banking issues.

While the Consultation Paper appears to treat third-party pricing sources differently from specialists, it is not clear how to determine the difference between the two. For example, real estate appraisers normally provide comparable sales prices of similar properties (as a third-party pricing service might) but would also provide other analyses as a basis for adjustment. Given the proposal to require auditors to test assumptions developed by a company's specialist as if it were produced by the company, the differentiation is critical and could result in very significant and unnecessary costs in the audit process. For example, testing the underlying market data used by appraisers and other specialists (such as those who assist in the valuation of core deposit intangibles) would be unduly onerous.

We further advise the PCAOB to review whether in many situations, regulatory bank examiners may qualify as specialists in their review of the ALLL and of other financial instruments issues. For all practical purposes, we believe that the perspectives of the bank examiners and auditors are similar and many of the same substantive tests are currently used by both parties, resulting in significant redundancy in the audit process. Regulators also provide significant peer data that is often used in analytically reviewing the reasonableness of accounting estimates. With this in mind, we recommend that PCAOB address how the work of regulatory examiners fits into the audit.

### **Identifying Significant Accounts and Disclosures and Significant Risks**

**Question 14:** Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value estimates? Are there other factors that would be relevant in the auditor's evaluation of the degree of complexity of judgment in the recognition or measurement of an accounting estimate or fair value measurement (e.g., the use of a third party for the determination of a price)?

**ABA Response:** While market liquidity is listed as a factor to be considered when relevant, there are many factors that underlie quick changes in liquidity. As has been exhibited during the Financial Crisis and its aftermath, market liquidity for loans and debt securities can be highly affected by regulations and expected regulation. For example, regulatory capital requirements provide significant incentive to banks to sell off certain securities in certain circumstances. Since banks hold a significant portion of many forms of debt securities, such circumstances can thus result in quickly dried-up market liquidity. Further, regulatory actions, such as implementation of the Volcker Rule and the Liquidity Coverage Ratio, may require significant sales of certain assets at specific points in time. At specific times, this can have a large impact on market liquidity. Therefore, we believe that these factors, while they could be considered as part of "market liquidity" within the standard, should be addressed within a fuller discussion on auditing fair value measurements.

As it relates to an expected change in how the allowance for loan and lease losses (ALLL) are measured, more subjectivity will be required, as forecasts of future losses will be an integral part of the estimation process. We believe that small changes in forecasted economic growth can translate to large changes in the estimated ALLL balance. Therefore, more thorough research is needed to determine how such subjectivity can be addressed within the audit process.

### **Evaluating the Company's Method Used to Develop an Accounting Estimate**

**Question 27:** In circumstances where the financial reporting framework does not specify the use of a particular valuation method, is the consideration of methods accepted by the company's industry relevant? Are there other criteria that auditors could use to evaluate the appropriateness of the company's method used to develop accounting estimates?

**ABA Response:** While accepted methods of valuation can be relevant factors when auditing accounting estimates and fair value measurements, we believe a requirement to formally identify and consider those methods is unnecessarily burdensome and will also burden smaller banking institutions and their auditors. An example would be the methods to estimate the ALLL used by larger banks (which may use sophisticated probability of default/loss given default (PD/LGD) models or discounted cash flow projections) compared to methods used by smaller banks (which often apply factors to annualized charge-off information). We wonder how the smaller auditing firm is expected to react by considering the PD/LGD models and question the value of such consideration.

As noted in our letter above, new accounting standards are also expected to be approved that will require new estimates and fair value measurements to be made. These new standards will introduce new and unproven methods of estimation and measurement into the industry. We recommend that the PCAOB reject any requirement for the auditor to evaluate methods to develop accounting estimates that are "accepted within the company's industry". In addition to the practical problems of defining "industry acceptance" (especially under new accounting standards), accepted estimation methods are expected to continuously evolve. Current practice in estimating the allowance for loan and lease losses, for example, may vary based on company size. Further, based on how "method" is defined, methods can vary by region or even based on individual regulatory examination teams. Therefore, practical issues also face any such requirement.

### **Identifying Significant Assumptions**

**Question 28:** Would a requirement for the auditor to determine which assumptions used by management are significant assumptions present difficulties in practice? Should the staff consider a requirement for the auditor to identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate?

**ABA Response:** There should be no requirement for auditors to assess all significant assumptions, including those not identified by management. Many auditing firms, large and

small, will struggle to efficiently identify the population of assumptions, evaluate the relevance and significance of each assumption. As noted in our response to question 27, practices related to accounting estimates will vary, based often on the size of the banking institution. Those methods used by community bankers will normally be simpler, with significantly fewer assumptions made compared to larger institutions. To require the auditor to identify other assumptions that may not be used by the company will not only result in unnecessary costs to the audit process, but it will also cause unnecessary conflicts with banking industry regulators that often recommend certain methods and assumptions to the banks they supervise. In these cases, the benefits are unlikely to exceed the costs of additional work.

### **Evaluating the Reasonableness of Significant Assumptions**

**Question 30:** Are the suggested factors (described above) appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluating the reasonableness of significant assumptions relevant to accounting estimates?

**ABA Response:** Based on the following changes that FASB is expected to approve, forward-looking forecasts of the future should be considered significant factors that may addressed. Not only are future economic and market conditions considered in these estimates, but also future customer behavior.

- a. The estimate of the allowance for loan and lease losses (ALLL): The new ALLL estimate will involve significant long-term forecasts of future losses based on an expected life of a portfolio. Not only should existing market information be considered, but also future market information.
- b. Disclosure of loans at their exit price-based fair value: While disclosures of the fair value of loans is not new, most banks currently measure them at an “entrance price-based” fair value, as the vast majority of many loans – especially those loans held by community banks – are neither sold nor are there consistent and reliable transactions that would provide inputs to determine exit prices.
- c. Disclosure of certain core deposit information: Depending on the final definition of “core deposit”, the new disclosure may require significant forecasts of economic activity, interest rates, and customer behavior. Such forecasts would be required if macroeconomic-based “surge” balances that exist within many core deposit accounts must be excluded from gross core deposit balances.

**Question 36:** Are the potential requirements described above for evaluating audit evidence from events or transactions that occur subsequent to the measurement date through the date of the auditor’s report, appropriate for both accounting estimates and fair value measurements?

**ABA Response:** Having experienced the changes in liquid markets resulting from general economic decline and from regulatory pronouncements (see question 14 above), we believe that subsequent transactions may or may not be reliable indications of fair value. While there can be

Public Company Accounting Oversight Board

Washington, DC

PCAOB Staff Consultation Paper *Auditing Accounting Estimates and Fair Value Measurements*

November 10, 2014

Page 12

situations when referring to subsequent transactions provide value to the auditing of fair values, we recommend that PCAOB reject that such procedures be required. If PCAOB ultimately approves such a requirement, we urge the Board to accompany it with guidance that illustrates circumstances in which such evidence would be inappropriate.

### **Use of Third Parties**

**Question 39:** Should the potential new standard (if the third-party source used by the auditor is the same as the third-party source used by the company, the auditor should evaluate the audit evidence obtained as if it were produced by the company...) require the auditor to use a third-party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?

**ABA Response:** Such a requirement will significantly affect community banks and their auditors the most, as the availability of qualified auditing firms and third-party sources are often limited, based on the specific markets that are served. This requirement will be costly for both, as they typically do not have sufficient size to pursue a wide range of pricing firms. Additional audit testing (for example, for appraisers, actuaries, or other consultants) to re-perform a valuation or an appraisal would not be cost-beneficial.

We also expect further evolution of pricing to occur, including consolidation of pricing vendors and use of sub-vendors, which could further complicate the use of any third-party source. For example, within consolidation of the pricing industry, it becomes more likely that the servicer used by the auditor will be the same as the servicer used by the bank. On the other hand, if sub-servicing is utilized by a pricing service, it may become more likely that the bank and the auditor are (through the pricing service's use of sub-servicer) using the same pricing service. In both cases, it appears that the auditor will be required to test the data as though it were generated by the bank.

The new standard must be clear as to "how far does the auditor need to go?" in determining whether to treat the related work as though it was produced by the company. The answer to that question will affect how bankers procure such services, as they will naturally seek the most cost-efficient path. With this in mind, ABA recommends that PCAOB reject the proposal that if the third-party source used by the auditor is the same as the third-party source used by the company, the auditor should evaluate the audit evidence obtained as if it were produced by the company. In this case, a one-size-fits-all approach will not work.



# American Federation of Labor and Congress of Industrial Organizations



815 Sixteenth Street, N.W.  
Washington, D.C. 20006  
(202) 637-5000  
www.aflcio.org

## EXECUTIVE COUNCIL

**RICHARD L. TRUMKA**  
PRESIDENT

Michael Sacco  
Harold Schaitberger  
Leo W. Gerard  
Nancy Wohlforth  
Randi Weingarten  
Patrick D. Finley  
Ken Howard  
James Andrews  
Walter W. Wise  
Joseph J. Nigro  
Laura Reyes  
Kenneth Rigmaiden  
Bhairavi Desai  
Harry Lombardo

**ELIZABETH H. SHULER**  
SECRETARY-TREASURER

Michael Goodwin  
Edwin D. Hill  
William Hite  
Rose Ann DeMoro  
Rogelio "Roy" A. Flores  
Newton B. Jones  
James Boland  
Maria Elena Durazo  
Lawrence J. Hanley  
James Callahan  
J. David Cox  
Stuart Appelbaum  
James Grogan  
Dennis D. Williams

**TEFERE GEBRE**  
EXECUTIVE VICE PRESIDENT

Robert A. Scardelletti  
Clyde Rivers  
Larry Cohen  
Fred Redmond  
Fredric V. Rolando  
D. Michael Langford  
Bruce R. Smith  
Terry O'Sullivan  
Loretta Johnson  
DeMaurice Smith  
David Durkee  
Joseph T. Hansen  
Paul Rinaldi  
R. Thomas Buffenbarger  
Cecil Roberts  
Gregory J. Junemann  
Matthew Loeb  
Diann Woodard  
Baldemar Velasquez  
Lee A. Saunders  
Veda Shook  
Capt. Lee Moak  
Sean McGarvey  
D. Taylor  
Harold Daggett  
Mark Dimondstein

November 3, 2014

*Sent via Electronic Mail*  
[comments@pcaobus.org](mailto:comments@pcaobus.org)

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.,  
Washington, D.C. 20006-2803

***Re: Staff Consultation Paper on Auditing Accounting  
Estimates and Fair Value Measurements***

Dear PCAOB Members:

On behalf of the American Federation of Labor and Congress of Industrial Organizations ("AFL-CIO"), I appreciate the opportunity to comment on the PCAOB Staff Consultation Paper on Auditing Accounting Estimates and Fair Value Measurements dated August 19, 2014. The AFL-CIO commends the efforts by the PCAOB to consider improvements to its standards for auditing accounting estimates and fair value measurements. To advance this goal, the AFL-CIO supports the creation of a single PCAOB standard to help ensure high quality audits by auditors.

The AFL-CIO is the umbrella federation for U.S. labor unions, including 56 unions, representing 12.5 million union members. Union-sponsored and Taft-Hartley pension plans hold more than \$560 billion in assets. Union members also participate directly in the capital markets as individual investors and as participants in pension plans sponsored by corporate and public-sector employers. The retirement savings of America's working families depend, in part, on public companies and mutual funds having reliably audited financial statements.

Improvements in the PCAOB's auditing standards for fair value measurements are necessary to ensure that audited financial statements are as accurate as possible when they include estimates of financial instruments that are difficult to value. As the

Letter to Public Company Accounting Oversight Board  
November 3, 2014  
Page Two

PCAOB's Division of Registration and Inspections Director Helen Munter noted in the PCAOB Standing Advisory Group meeting on October 2, 2014, the PCAOB's inspections of registered public accounting firms have revealed significant numbers of fair value audit deficiencies. For example, she described a "very high rate of occurrence" of deficiencies in the auditing of Level 2 assets, and while there have been improvements in recent years, she noted ongoing deficiencies for Level 3 assets.

Likewise, the PCAOB's auditing standards for accounting estimates should be improved to reinforce the need for auditor objectivity when auditing accounting estimates. In the October 2nd Standing Advisory Group meeting, Ms. Munter explained how various PCAOB inspections have found a lack of professional skepticism by audit teams. She described situations where auditors collected information to support management's accounting estimates rather than to develop an independent estimate. For example, she stated there have been frequent examples of auditors who did not adequately test management's assumptions in its allowances for doubtful accounts.

Issuing a single PCAOB standard for auditing accounting estimates and fair value measurements will help address the audit deficiencies that the PCAOB has uncovered in its inspections. As the Staff Consultation Paper notes, the existing audit standards (AU sections 328, 332, and 342) have been issued at various points in time and may be perceived as containing inconsistencies. The issuance of a single, unified standard will help auditors better understand their professional obligations. In addition, incorporating the PCAOB's own risk assessment standards into a new standard will help to further reduce the risk of audit failures in these areas.

Thank you for the opportunity to comment on PCAOB Staff Consultation Paper on Auditing Accounting Estimates and Fair Value Measurements. If I can provide any additional information on the AFL-CIO's views, please contact me at 202-637-5152.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brandon Rees', with a stylized, cursive script.

Brandon Rees  
Deputy Director  
AFL-CIO Office of Investment

BJR/sdw  
opeiu #2, afl-cio



September 22, 2015

**VIA EMAIL**

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, DC 20006-2803

**Re: Request for Comment: Staff Consultation Paper on Auditing Accounting Estimates and Fair Value Measurements**

Dear Office of the Secretary:

We appreciate the opportunity to comment on the Public Company Accounting Oversight Board's (the "PCAOB's") above-referenced Staff Consultation Paper (the "Paper") developed by the Office of the Chief Auditor (the "Staff"). We serve as audit committee chairpersons for the indicated American Funds ("Funds"). The Funds are one of the oldest and largest mutual fund families in the nation, whose investment adviser is Capital Research and Management Company. The comments contained below are our own, as senior leaders in various business, governmental, legal and academic organizations. Nevertheless, we feel our comments also reflect the views of many of our fellow audit committee members.

**Summary**

As members of the audit committees, we are dedicated to our role of overseeing the integrity of the Funds' financial statements, including their accounting policies regarding estimates and fair value measurement, and the audits of the Fund's financial statements. In carrying out this role, we exercise due care in engaging a qualified auditor to perform appropriate audit procedures in order to report to shareholders on the fairness of those financial statements, particularly in the area of fair value measurements given that in most cases substantially all of a mutual fund's assets are comprised of investment securities. Additionally, an integral part of the audit committee's, and indeed the full Board's, responsibilities are to review the valuation procedures of a fund at least annually. At each meeting the audit committee receives reports and reviews the various levels of inputs used to value a fund's investments, and obtains detail and discusses any investments that



may utilize unobservable inputs. The audit committee also reviews any errors that occur due to valuation, and ensures shareholders affected by such errors are reimbursed according to fund policy.

Given the above focus on valuation, we are supportive of the PCAOB's efforts to examine the rules surrounding the auditing standards through the lens of improving audit quality, addressing inconsistencies and integrating existing standards with risk assessment standards with respect to accounting estimates and fair value measurements. We are providing comments on two of the most significant areas of the Paper related to mutual funds, third-party pricing services and national-level pricing desks. We are concerned with the Paper's suggestion to change the requirements surrounding auditor's use of third-party pricing services. We believe these changes, particularly in light of mutual fund specific procedures surrounding valuation described below, would increase costs to shareholders while providing little-to-no benefit to shareholders and audit quality. As discussed in more detail below, we do not support the requirements surrounding auditor's use of third-parties as discussed, and would propose some alternatives. In addition, in our role as audit committee members, we believe that our auditors benefit from the use of centralized national-level pricing desks, and believe their continued use contributes to enhanced audit quality at a reduced cost to shareholders.

### Third-Party Pricing Services

We are concerned that the language describing the auditor's evaluation of evidence provided from third-party pricing sources implies that the auditor would be required to evaluate the relevance of the evidence for *each* fair value measurement. In particular, one suggested approach the Paper mentions that the auditor should evaluate the relevance of the evidence provided by the third-party source to each fair value measurement, regardless of the relative level of observability of the inputs of each security. Such a requirement to do more substantive audit work to evaluate the relevance of the evidence for each fair value measurement obtained from the third-party pricing vendors would:

- significantly increase the audit procedures performed and related audit documentation on securities with low risk and measurement uncertainty; and
- inundate the pricing services providers with requests from auditors.

We believe the result of which would be a marginal increase in audit quality but a substantial increase in audit fees incurred by shareholders. Alternatively, we would recommend, as suggested on page 43 of the Paper, that the PCAOB continue to allow auditors to look to the requirements of existing PCAOB standards (e.g., AU sec. 328), as applicable.

Furthermore the Staff asks on Page 19, Question 9, "Are there considerations relevant to auditing accounting estimates and fair value measurements including other regulatory

requirements specific to certain industries that the Staff should take into account?" In response, we would note that it is common practice in the mutual fund industry for a valuation committee to approve back-testing procedures. As part of this back-testing, fund management personnel generally test each fair value decision made on a business day to the next opening or traded price in order to evaluate the reasonableness of that decision. Such testing analysis is typically evaluated contemporaneously by fund management, and regularly reported to a fund board and/or audit committee. Given this generally consistent industry approach, we do not believe the potential additional audit procedures described in the Paper are appropriate for a fund, particularly since an auditor's identification happens significantly after fund transactions have occurred.

Auditors review the fund's valuation policies and, under a risk-based approach, test the valuation procedures and transactions where uncertain measurement exists. AU 328 states the auditor "should obtain sufficient appropriate audit evidence to provide reasonable assurance that fair value measurements and disclosures are in conformity with GAAP." Auditors to registered investment companies typically obtain fair value measurements for the fund's securities from third-party pricing vendors different than the third-party pricing vendor used by the fund. Such fair value measurements represent independent estimates/valuations which are used by the auditor to corroborate the fair value measurements used by the fund. Our understanding is that these pricing services are increasingly having an SSAE 16 controls type II testing performed on their pricing processes, and we believe the presence of these types of control reports strengthens the audit evidence and should be embraced by all pricing vendors. Finally, for mutual funds the auditors are required to test every security in the investment portfolio in connection with their annual audit.

#### National-level Pricing Desks

The Staff asks on page 15, Question 2, "The staff understands differences may exist in the use of centralized or national-level pricing desks ("Pricing Desks") at audit firms. The staff is interested in current practice for interaction between Pricing Desks and engagement teams. For example, how (and by whom) are Pricing Desks supervised given the engagement partner's responsibility under the risk assessment standards? How should these considerations affect auditing standards?"

In our role as audit committee members, we are focused on ensuring that we have a high quality audit engagement team, starting with the audit partner but including the entire team responsible for providing an opinion on the financial statements of the funds. In addition, we also evaluate the strength of the entire audit practice of the audit firm including the audit firm's specialists such as the Pricing Desks. These Pricing Desks support engagement teams conducting the audits by corroborating fair value measurements and provide audit firms with a more consistent evaluation process than

would otherwise be provided if individual engagement teams were performing their own evaluations. The Pricing Desk assists audit engagement teams to determine that the valuations provided by the third-party pricing vendor are consistent with the required fair value measurement framework under GAAP (i.e., FASB ASC 820), and to evaluate the relevance and reliability of the price obtained by management and to evaluate the need to perform additional procedures to obtain sufficient appropriate audit evidence in accordance with Auditing Standard No. 15, Audit Evidence.

Pricing Desks can, among other activities

- liaise with the third-party pricing vendor in order to understand its controls and underlying pricing methodologies,
- perform analytics on prices obtained from third-party pricing vendors, and
- assist the audit engagement team's evaluation of audit differences related to fair value.

We believe the use of Pricing Desks enhances the audit firm's understanding of pricing vendors and, because the audit firms themselves are independent, their internal Pricing Desks should also be considered independent and best positioned to provide a determination of fair value estimate provided by a third-party pricing vendor.

\* \* \* \* \*

We appreciate the opportunity to comment on the Paper. If you have any questions regarding our comments, please feel free to contact us.

Sincerely,

**Elisabeth Allison**

*Audit Committee Chair -*  
New Perspective Fund, EuroPacific Growth Fund  
New World Fund, Inc.  
Director, The Stanton Foundation

**Ronald P. Badie**

*Audit Committee Chairman -*  
American Funds Fundamental Investors,  
The Growth Fund of America, SMALLCAP World  
Fund, Inc.  
Former Vice Chairman, Deutsche Bank  
Alex. Brown

**Joseph C. Berenato**

*Audit Committee Chairman -*  
Capital Income Builder, Capital World Growth  
and Income Fund, The New Economy Fund  
Former Chairman & CEO, Ducommun Inc.

**Vanessa C. L. Chang**

*Audit Committee Chair -*  
American Balanced Fund, American Funds  
Developing World Growth and Income Fund, The  
Income Fund of America, International Growth  
and Income Fund  
Director, EL & EL Investments

**William D. Jones**

*Audit Committee Chairman -*  
AMCAP Fund, American Mutual Fund, The Investment  
Company of America, American Funds Global Balanced Fund  
President & CEO, CityLink Investment Corp. &  
City Scene Management Co.

**James C. Miller III**

*Audit Committee Chairman -*  
Washington Mutual Investors Fund, The Tax-Exempt Fund of  
Maryland, The Tax-Exempt Fund of Virginia  
Senior Advisor, Husch Blackwell LLP

**Laurel B. Mitchell**

*Audit Committee Chair -*  
American Funds Insurance Series, American Funds Target  
Date Retirement Series, American Funds Portfolio Series  
American Funds College Target Date Series  
American Funds Retirement Income Portfolio Series,  
The Fixed Income Funds of the American Funds  
Distinguished Professor of Accounting, University of  
Redlands

November 3, 2014

Public Company Accounting Oversight Board  
Office of the Secretary  
1666 K Street, NW  
Washington, DC 20006

To Whom It May Concern:

On behalf of the 22,000 Designated members, candidates and affiliates of the Appraisal Institute, thank you for the opportunity to comment on the Public Company Accounting Oversight Board's (PCAOB) Staff Consultation Paper on *Auditing Accounting Measurements and Fair Value Measurements*. As background, the Appraisal Institute is the largest professional association of real estate valuers in the world; is the largest publisher of real estate valuation related textbooks; and is one of the largest valuation related education providers in the world. Many individuals who have earned the prestigious MAI designation from the Appraisal Institute work for accounting firms and financial advisory and audit assistance firms.

We look forward to working with the PCAOB as it assesses and considers enhancements to audit standards relating to fair value measurements. Like others, we have witnessed a trend of increasing use of global financial reporting standards based upon fair values. Those financial statements deserve scrutiny by well qualified and trained audit staff who understand valuation principles and procedures, or who rely on specialists who do.

We have studied the Staff Consultation Paper, and we attended the Standing Advisory Group meeting held on October 2, 2014 in Washington, and we offer three broad statements:

1. Valuation is a diverse and mature profession with a distinct body of knowledge. The Appraisal Institute is a leading association within the profession, and we have roots that go back nearly a century. Through this, we hold a distinct body of knowledge that is tested by investors, government agencies, and the judiciary every day. As but one example, *The Appraisal of Real Estate, 14<sup>th</sup> Edition*, is a seminal publication that is utilized in most introductory courses in real estate valuation.
2. The valuation profession is highly specialized and certain specialties are more defined than others. For instance, real estate valuation is supported by a robust body of knowledge, has in place a licensing regime that is overseen by state regulatory boards, and is benefited by active professional societies that confer professional designations. By comparison, the realm of financial asset valuation is less mature and is considered an emerging field of discipline.
3. The fact that current auditing and accounting education includes very little about valuation is not because valuation education does not exist. To the contrary, there is a wide assortment of valuation related education in the marketplace today that is available to auditors and the accounting profession. A current course [catalog](#) and [schedule](#) illustrates the full breadth of education that is current available to the public.

One area of evolution within the valuation profession that the PCAOB staff should be aware of is the development of valuation review or "forensics." Over the past three decades, the valuation profession has witnessed the growth of a distinct discipline relating to appraisal or valuation review. Valuation review is supported by review standards that are enforced by licensing authorities in the realm of real estate valuation and by professional associations in most valuation specialties. In addition, valuation review has evolved to include a strong body of knowledge that includes courses on review theory, principles and case studies. This past year, the Appraisal Institute conferred its first appraisal review designations (the AI-GRS or General Review Specialist and AI-RRS or Residential

Review Specialist)<sup>1</sup>. As the PCAOB looks at audit standards, we encourage the agency to review these programs and consider encouraging auditors to become familiar with such education programs.

Finally, recognizing the growing interest in valuation by investors and the financial community in general, the Appraisal Institute announced the formation of a subsidiary called the International Center for Valuation Certification (ICVC). The ICVC will confer cross-disciplinary valuation certifications to individuals who meet select criteria. The work of the ICVC mainly focuses on the realm of valuation for financial reporting or fair value measurements, making more widely available to the financial community the body of knowledge that exists in valuation.

We look forward to working with the PCAOB as it continues its review of fair value measurement issues. We would be happy to provide additional information or answer any questions about these or other valuation matters. Please contact Bill Garber, Director of Government and External Relations at 202-298-5586, [bgarber@appraisalinstitute.org](mailto:bgarber@appraisalinstitute.org) for more information.

Thank you again for the opportunity to comment on the Staff Consultation Paper.

Sincerely,

Ken P. Wilson, MAI, SRA

---

<sup>1</sup> More information on the review designations is available at <http://www.appraisalinstitute.org/reviewdesignation/>



November 3, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**RE:** PCAOB Staff Consultation Paper,  
*Auditing Accounting Estimates  
and Fair Value Measurements*

Board Members:

Thank you for the opportunity to comment upon the PCAOB's Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*. We appreciate all the time and effort associated with the research, survey, compilation and solicitation for comment on this very important auditing topic.

As a firm that primarily focuses on auditing registered investment companies, auditing fair value measurements is of the utmost importance to us. Therefore we will focus our comments here to matters pertaining to fair value measurements. That said, we do see merit in a single standard that addresses both accounting estimates and fair value measurements, as there is significant conceptual overlap between the two. We believe that among the alternatives that the Staff Consultation Paper details, the issuance of a new separate standard on auditing accounting estimates and fair value measurements would be preferable in that a new standard would afford the best opportunity to provide comprehensive current relevant guidance to audit firms. The other alternatives put forth would result in somewhat of a patchwork to existing standards. Our responses to selected questions outlined in the Consultation Paper are detailed below.

*Question 9. Are there considerations relevant to auditing accounting estimates and fair value measurements including other regulatory requirements specific to certain industries that the staff should take into account?*

We would ask that any new standard on fair value measurements reflect the spirit of the SEC's Codification of Financial Reporting Policies Section 404.03. Accounting, Valuation and Disclosure of Investment Securities, Accounting Series Release No. 118, which states, in relevant part; "Auditing security valuations...In the case of securities carried at "fair value" as determined by the Board of Directors in "good faith," the accountant does not function as an appraiser and is not

BBD,LLP

CERTIFIED PUBLIC ACCOUNTANTS

ACCOUNTING ■ AUDIT ■ TAX ■ BUSINESS ADVISORY

1835 MARKET STREET, 26TH FLOOR ■ PHILADELPHIA, PA 19103 ■ T: 215/567-7770 ■ F: 215/567-6081 ■ [www.bbdcpa.com](http://www.bbdcpa.com)

Office of the Secretary, Public Company Accounting Oversight Board  
November 3, 2014  
Page 2

*expected to substitute his judgment for that of the company's directors; rather, he should review all information considered by the board or by analysts reporting to it, read relevant minutes of directors' meetings, and ascertain the procedures followed by the directors."* As stated on page 19 of the Consultation Paper, *"...the objective of the auditor under a potential new standard would be to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable and in conformity with the applicable financial reporting framework."* We believe that this objective is consistent with the SEC's message in its Codification of Financial Reporting Policies Section 404.03 and that the fact that the auditor is not expected to serve as an appraiser or substitute his or her judgment for that of its client is an important principle that should be emphasized in any potential new standard on this topic.

*Question 23. Aside from testing management's process, developing an independent estimate, or reviewing subsequent events and transactions as further discussed, should a potential new standard allow for or require other approaches to testing accounting estimates? If so, what other approaches would be appropriate?*

We believe that the three approaches for substantively testing fair value measurements contained in AU sec. 328 and AU sec. 342 of the current standards are time tested, appropriate and should form the foundation for any auditor's approach to substantively testing fair value measurements. However, no standard can anticipate every potential scenario that an auditor may encounter. We believe that any new standard should not serve to erode auditor judgment and allow for, but not require, alternative approaches to testing accounting estimates and fair value measurements. While examples of alternative approaches may be helpful, we believe the overarching principal with respect to alternative approaches should be to allow an auditor to tailor his substantive testing as he or she deems necessary under the circumstances, so long as the auditor achieves the objective of obtaining sufficient appropriate audit evidence to determine whether accounting estimates are reasonable and in conformity with the applicable financial reporting framework.

*Question 20. Given the existing requirements related to testing controls in Auditing Standard No. 13 (and Auditing Standard No. 5, as applicable), would specific requirements on testing internal controls over accounting estimates be useful (e.g., evaluation of design and operating effectiveness of key review controls over accounting estimates)?*

*Question 25. Are there enhancements to the existing requirements for testing data used by management to develop the accounting estimate the staff should consider?*

We have chosen to respond to Question 20 in conjunction with Question 25 for the following reason. Page 28 of the Consultation Paper discusses how existing standards (AS 12) require an auditor to obtain an understanding of internal control sufficient to plan the audit. It further discusses how existing standards (AS 13) require the auditor to obtain evidence that the controls selected for testing were designed and operated effectively. The Consultation Paper also states that these requirements can be readily applied to tests of controls over accounting estimates and



Office of the Secretary, Public Company Accounting Oversight Board  
November 3, 2014  
Page 3

that the Staff is considering whether additional requirements related to testing controls over accounting estimates are necessary. With respect to this, the Consultation Paper poses question number 20, above. In several places, the Consultation Paper addresses the testing of management's processes used in developing accounting estimates and fair value measurements – in particular on pages 13, 20 and 30 – 31. On page 31, the Consultation Paper states that a “potential new standard could build on the requirements in the existing standards for testing the company's process including: (i) evaluating the appropriateness of the company's methods; (ii) testing the data used; and (iii) evaluating the reasonableness of significant assumptions.” The paper goes on to discuss in great detail the concepts of evaluating the appropriateness of the company's methods and evaluating the reasonableness of significant assumptions but does not seem to further address testing data used. On page 13, the Consultation Paper speaks about existing standards and how testing “the data used” involves evaluating whether the data is complete, accurate, relevant and consistent. We think that evaluating the data and the process surrounding its use may be accomplished by testing controls. Clearly page 28 of the Consultation Paper contemplates some use of control testing in the evaluation of management's process for developing accounting estimates and fair value measurements. We believe that some linkage between the evaluation of management's processes and testing controls would be helpful. In particular, guidance on when and how an auditor might consider testing controls surrounding management's process of developing accounting estimates and fair value measurements and when those tests could be utilized in a “dual purpose” manner with the substantive objective of evaluating management's process would be very helpful.

Question 26. Are the potential requirements described above for evaluating whether the company's method used to develop accounting estimates appropriate for both accounting estimates and fair value measurements?

This question relates to potential proposed standard requirements detailed on page 33 of the Consultation Paper that would call for an auditor to consider certain factors when evaluating the appropriateness of a company's methods used to develop an accounting estimate or fair value measurement. Those factors, as cited on page 33, are whether the method is a) accepted in the company's industry, b) applied consistently (including whether consistency is an appropriate concern when the company's environment or circumstances change), c) reasons for changes in methods and d) in circumstances where multiple methods result in significantly different estimates, the reasons management selected the method it is utilizing. We believe that guidance as to how an auditor should approach evaluating the overall appropriateness of a company's method for developing accounting estimates and fair value estimates would be helpful. Furthermore, we believe that standard industry practices and consistency are important factors that an auditor should consider in making such evaluations. We further, believe that the standard should make it clear that evaluations of the appropriateness of such management methods should not be limited to these factors, leaving room for the auditor to exercise judgment in making such evaluations.

Office of the Secretary, Public Company Accounting Oversight Board  
November 3, 2014  
Page 4

Question 28. Would a requirement for the auditor to determine which assumptions used by management are significant assumptions present difficulties in practice? Should the staff consider a requirement for the auditor to identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate?

We do not believe that a requirement for the auditor to determine which assumptions used by management are significant assumptions would cause difficulties in practice. Such a requirement would not be significantly different to current standards and practice. We have concerns regarding whether the Staff should consider a requirement for the auditor to identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate. Perhaps it would be more appropriate for the audit to *consider* whether assumptions not used by management exist and if they do exist, to judge their significance. That said, we believe that any such requirement should be accompanied by guidance as to how the auditor should evaluate the existence of such assumptions that have not been used by management in its process. This would include whether a presumption of a control deficiency exists due to the failure to identify such assumptions, whether such failure can be overcome by the presence of other factors and whether the failure on the part of management to identify and use a significant factor necessarily means that a material misstatement exists (i.e. could management's failure to identify and use a significant assumption in its process nevertheless result in a circumstance where that process produces an accounting estimate or fair value measurement that is not materially misstated).

Question 29. Is the potential requirement suggested above clear and appropriate for both accounting estimates and fair value measurements? Are there other specific characteristics of significant assumptions that should be included?

We believe that including guidance in a new standard as to what assumptions constitute "significant assumptions" would be helpful to auditors. In particular in the box on page 35 of the Consultation Paper, items that a) cause a significant change in the accounting estimate, based on a minor variation in the assumption; b) are susceptible to manipulation or bias; c) are based on unobservable data; and d) are based on observable data adjusted by the company seem of particular importance. Item a, would seem to lend itself to sensitivity based testing (see *response to Question 30, below*).

Question 30. Are the suggested factors described above appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluating the reasonableness of significant assumptions relevant to accounting estimates?

We believe that the factors listed in the box at the top of page 37 of the Consultation Paper are helpful in evaluating the reasonableness of significant assumptions. They are, however, somewhat general. We believe that auditors could benefit from having a new standard that provides more

Office of the Secretary, Public Company Accounting Oversight Board  
November 3, 2014  
Page 5

specific guidance regarding the reasonableness of significant assumptions. For example, as mentioned above, one of the factors that might lead an auditor to judge an assumption used in developing an accounting estimate or a fair value measurement to be significant might include the sensitivity of the estimate to minor variations in the assumption. When encountering such assumptions, an auditor might find that conducting a sensitivity analysis would be helpful in gauging the reasonableness of an assumption. We think that a new standard on evaluating significant estimates should include guidance on when and how a sensitivity analysis of significant assumptions may be appropriate as well as how auditors might use such analysis in making evaluations of the reasonableness of such assumptions. We do believe that auditor judgment should be preserved and that any new standard should not require a sensitivity analysis, but rather offer guidance as to when and how it may be useful. Additionally, we believe it would be useful for any new standard to include guidance as to what steps an auditor should take or consider when management bias or manipulation of assumptions is suspected. Finally, guidance as to what constitutes a reasonable range of potential significant assumptions would be helpful, particularly given the measurement uncertainty that is present with making fair value measurements on many types of investment assets.

Question 31. Is the potential requirement described above appropriate for all types of accounting estimates? Are there other considerations that should be taken into account in applying this requirement to accounting estimates?

We agree with the concept that when a company uses a specialist employed or engaged by the company to develop an accounting estimate, the auditor should test the information provided by the specialist as if it were produced by the company. Another consideration that a new standard might include would be a requirement for the auditor to assess the qualifications of the specialist. Furthermore, in cases where the client develops a complex accounting estimate or fair value measurement *without* engaging a specialist, it may be appropriate for the auditor to assess whether or not the client has adequate expertise in house to make the estimate or fair value measurement, and, if the auditor concludes that the client does not have adequate expertise in house, what steps the auditor should take in assessing the situation for a possible control deficiency.

Question 32. Are the potential requirements described above for developing an independent estimate, including the potential requirements regarding testing data and assumptions, clear and appropriate for both accounting estimates and fair value measurements? Would these requirements present challenges for certain types of accounting estimates and fair value measurements?

We believe the potential requirements would present at least two specific challenges for fair value measurements determined by a third-party pricing source. First, regarding the ability to obtain and test security specific data, third-party pricing services may not be willing to provide absolute transparency on each and every price they provide, in as doing so would disclose their proprietary

Office of the Secretary, Public Company Accounting Oversight Board  
November 3, 2014  
Page 6

models. Second, for an audit of an investment portfolio containing hundreds or thousands of individual security positions, it may be impractical, inefficient or even impossible for an auditor to test the inputs used for each and every price provided by the source. In view of this, guidance on when and how an auditor might use sampling in testing data and assumptions used by third-party pricing sources would be helpful.

Question 35. Are there other matters relevant to developing a range that a potential new standard could address (e.g., requiring a sensitivity analysis)?

Similar to our response to question 30 above, we believe that any new standard addressing situations where an auditor chooses to develop an independent estimate as a range of estimates should include guidance on when and how a sensitivity analysis of significant assumptions may be appropriate in developing and evaluating such a range of estimates. Furthermore, guidance as to what constitutes a reasonable range of potential estimates would be helpful, particularly given the measurement uncertainty that is present with making fair value measurements on many types of investment assets. Again, we believe that auditor judgment should be preserved and that any new standard should not require a sensitivity analysis, only offer guidance as to when and how it may be useful.

Question 39. Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?

We do not believe that a potential new standard should *require* the auditor to use a third party that is different from the third party used by management. To do so would erode auditor judgment and ignore the fact that there may be circumstances where it is appropriate for the auditor to use the same third party that is used by management. That being said, we believe that such circumstances should not be the norm. Rather, we think that a presumption that the auditor should utilize a third party that is different from the third party used by management should be included in the standard. In order to overcome this presumption the auditor would be required to document his or her reasons for doing so.

Question 40. Would the factors noted above help the auditor in evaluating the reliability and relevance of evidence obtained from third-party pricing sources? Are there other factors that are applicable in determining the reliability or relevance of evidence obtained from third-party pricing sources?

We believe that the factors listed on pages 45 and 46 of the consultation paper are relevant to an auditor's determination relative to the reliability of evidence provided by a third-party pricing source as well as the relevance of evidence obtained from third-party pricing sources. We believe that any new standard addressing this topic should address means by which auditors can consider the methods used by third-party sources in view of the fact that such third-party sources

Office of the Secretary, Public Company Accounting Oversight Board  
November 3, 2014  
Page 7

may not be willing to provide absolute transparency on each and every price they provide. Furthermore, for an audit of an investment portfolio containing hundreds or thousands of individual security positions, it may be impractical, inefficient or even impossible for an auditor to obtain complete transparency from a third-party pricing source on the inputs used for each and every price provided by the source. We believe that a new standard should make it clear that auditors be required to gain an understanding of the methods and inputs that third-party pricing sources use to price categories of securities (i.e. U.S. Treasury securities, municipal bonds, high yield corporate bonds, term loans, mortgage backed and asset backed securities, etc.).

Question 41. Are there other approaches to testing evidence obtained from third-party pricing sources that the staff should consider?

One additional approach to testing the evidence obtained from third-party pricing sources can be gleaned from a common practice in the investment company industry; the utilization of look-back testing. Look-back testing involves a retrospective review whereby the third-party provided prices are compared to actual historical trades occurring within a close proximity to the provided prices to test the reliability of the provided prices, the theory being that the provided prices should only deviate by a reasonable percentage from the actual trades. We believe that any potential standard might discuss how an auditor might utilize look-back testing in evaluating the reliability of third-party prices obtained by an audit client or utilize the look-back testing conducted by the client itself in the audit process.

Question 42. How could a potential new standard differentiate between a third-party pricing source and a specialist?

We believe that a potential new standard should differentiate between a third-party pricing source and a specialist. We believe that the distinction should hinge on the nature of services provided by the third party. For example, third-party pricing services provide prices that are generally available to anyone who subscribes to their service. They typically provide prices electronically on a real-time basis to their subscribers and typically provide pricing coverage for a large volume and broad range of securities. Specialists, on the other hand, are typically engaged for more targeted purposes by auditors and others looking to verify or establish a fair value for more difficult to value investments. We believe that any potential new standard should acknowledge the different roles that third-party pricing sources and specialists fill in the audit process and provide guidance on how auditors should approach working with both.

We would like to thank the Board for the opportunity to comment on the contents of the Staff Consultation Paper, Auditing Accounting Estimates and Fair Value Measurements, and we appreciate the work and effort of the Board to protect investors and further the public interest in the preparation of informative, accurate and independent audit reports.

Sincerely,

*BBD, LLP*

**BBD,LLP**



Tel: 212-885-8000  
Fax: 212-697-1299  
www.bdo.com

100 Park Avenue  
New York, NY 10017

November 3, 2014

Via E-mail: [comments@pcaobus.org](mailto:comments@pcaobus.org)

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803

Re: PCAOB Staff Consultation Paper: *Auditing Accounting Estimates and Fair Value Measurements*

Dear Office of the Secretary:

BDO USA, LLP appreciates the opportunity to respond to the request for comments on the Public Company Accounting and Oversight Board's (the PCAOB or the Board) Staff Consultation Paper: *Auditing Accounting Estimates and Fair Value Measurements* (the Consultation Paper). As set out in the Consultation Paper, we note that audit regulators from various jurisdictions have identified a high number of deficiencies in the area of fair value measurements. To address this issue, we support the PCAOB establishing a project to evaluate the effectiveness of the existing auditing standards in this area. While we believe that a project to enhance the auditing standards will help to clarify the auditor's responsibilities with respect to auditing accounting estimates and fair value measurements, we also believe that further analysis is needed to determine the root causes that have resulted in observed inspection findings to fully address the issue. Furthermore, we support enhancing the auditing standards to clearly communicate, with greater specificity, the expectations of the Board with respect to the performance of risk assessment procedures and the corresponding responses to risks of material misstatement specific to accounting estimates and fair value measurements. For example, we believe greater clarity is needed regarding how an auditor determines the most appropriate approach to responding to the assessed risk of material misstatement (i.e., test how management made the estimate and data on which it is based, use subsequent events to provide evidence about the estimate, or develop a point estimate or range to evaluate management's point estimate).

In general, we are supportive of developing a single standard that is aligned with the PCAOB's risk assessment standards. Such an approach would be similar to that used by the International Auditing and Assurance Standards Board (IAASB) and the AICPA's Auditing Standards Board, both of which issued a single standard to establish requirements and application guidance relating to auditing accounting estimates and fair value measurements. While we believe the issuance of a single standard is appropriate, there may also be an opportunity to provide incremental guidance relating to specific topics with a narrow focus, such as third-party pricing services, in a separate interpretive practice aid.

Moreover, to fully address the challenges in accounting and auditing accounting estimates and fair value measurements, we believe a comprehensive approach is needed that includes



Office of the Secretary  
Public Company Accounting Oversight Board  
Page 2 of 6

enhancements to the roles and responsibilities of all participants in the financial reporting process to provide greater transparency to users of financial statements with respect to these estimates.

#### Proposed Potential New Standard

As noted in the Consultation Paper, after consideration of alternative approaches to address the issues raised by inspections staff, the Standards Advisory Group, and other interested parties regarding accounting estimates and fair value measurements, the PCAOB Staff is contemplating developing a single standard for the Board to consider proposing that would supersede AU sec. 328, *Auditing Fair Value Measurements and Disclosures* (AU 328), AU sec. 342, *Auditing Accounting Estimates* (AU 342), and much of AU sec. 332, *Auditing Derivative Instruments, Hedging Activities, and Investments* (AU sec. 332). As set out in our remarks above, we generally support such an approach due to the overlap of auditing issues between these standards, and we encourage the staff to consider aligning the potential new standard with International Standard on Auditing 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* (ISA 540), where appropriate to minimize differences from the ISA, such that any incremental requirements address circumstances unique to auditing in the public company sector. Furthermore, we understand that the IAASB plans to reconsider certain aspects of ISA 540 as part of an upcoming project to address special audit considerations relevant to financial institutions. We encourage the PCAOB to work with the IAASB to coordinate efforts, where such coordination is appropriate.

#### *Identifying and Assessing Risks of Material Misstatement*

We agree with the position presented in the Consultation Paper that explains that the risk assessment standards provide the foundational requirements for identifying, assessing, and responding to risk in an audit. Moreover, we believe that the requirements in the risk assessment standards are intentionally principles-based so that they address a broad spectrum of situations and circumstances and, for this reason, we support including the specific risk assessment procedures relating to accounting estimates and fair value measurements within a separate standard that is devoted to that particular topic rather than within the risk assessment standards. For example, ISA 540, paragraph 8, explains how the broad requirement in ISA 315, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement*, which requires the auditor to understand the entity and its environment, including its internal control, should be implemented in the context of accounting estimates.

#### *Management's Use of a Specialist*

The Consultation Paper explains the staff's view that a potential new standard could include the existing requirement under AU 328 to test assumptions developed by a company's specialist, but apply it more broadly to information provided for accounting estimates such that if a company used a specialist to develop an accounting estimate, a potential new standard could direct the auditor to test that information as if it were produced by the

Office of the Secretary  
Public Company Accounting Oversight Board  
Page 3 of 6

company. Moreover, the Consultation Paper notes that this would mean the auditor would be required to evaluate the appropriateness of the methods, test the data used, and evaluate the reasonableness of significant assumptions, with respect to the information provided by the specialist. While we agree that when the company uses a specialist to develop an accounting estimate the auditor needs to perform work on that estimate, we believe a better way to explain the nature and extent of the work necessary to address the risk of material misstatement is to explain it in the context of obtaining sufficient appropriate audit evidence. For example, if management has used the work of a specialist, the auditor could be required to, based on the significance of the specialist's work, (a) evaluate the competence, capabilities, and objectivity of that specialist, (b) obtain an understanding of their work, and (c) evaluate the appropriateness of that specialist's work as audit evidence for the relevant assertion. Evaluating the appropriateness of the specialist's work might include consideration of the relevance and reasonableness of the specialist's findings or conclusions and their consistency with other audit evidence, the relevance and reasonableness of significant assumptions and methods used, and the completeness and accuracy of source data used when significant. This type of approach would be consistent with the guidance in ISA 500, *Audit Evidence*.

As part of obtaining an understanding of the work of management's specialist as set out in item (b) above, the auditor may consider the need for their own specialist. Factors the auditor may consider in making this judgment could include: the nature and significance of the estimate or fair value measurement, including its complexity; the risks of material misstatement; the auditor's knowledge of and experience with the matter; and the availability of alternative sources of audit evidence. We believe that additional clarity about how these factors should be considered in making a determination about the use of an auditor's specialist would be helpful and support consistent application. Moreover, we believe providing such additional clarity could reduce unnecessary duplication of work effort by management and auditor specialists.

Furthermore, we note that the Standard-Setting Agenda of the Office of the Chief Auditor, dated September 30, 2014, includes a project relating to AU section 336, *Use of Specialists* (AU 336), which anticipates the issuance of a consultation paper within the next six months. Given the linkage between the concepts presented in this Consultation Paper with those in AU 336, we believe that the development of a potential new standard to address AU 328 and AU 342 (and potentially AU 332) should be done in conjunction with the consideration of comments received from the consultation on the use of specialists to ensure all interrelationships between the potential new standard and AU 336 are fully vetted and appropriately considered.

#### *Developing an Independent Accounting Estimate as a Range*

We recognize that there are different types of estimates and varying levels of complexity and estimation uncertainty. Accordingly, we encourage the PCAOB to develop a principles-based standard that recognizes such variability. In accordance with existing PCAOB standards, to evaluate the reasonableness of an accounting estimate, the auditor obtains an understanding of the process management used to develop the estimate and, based on that





Office of the Secretary  
Public Company Accounting Oversight Board  
Page 4 of 6

understanding, uses one or a combination of approaches including (1) reviewing and testing the process used by management to develop the estimate, (2) developing an independent expectation of the estimate to corroborate the reasonableness of the estimate, or (3) reviewing subsequent events or transactions occurring prior to the date of the auditor's report to evaluate the reasonableness of the accounting estimate.<sup>1</sup> As the degree of estimation uncertainty in making an accounting estimate increases, the auditor, in testing management's process, may consider using different assumptions to evaluate the sensitivity of the accounting estimate, or may develop an independent estimate as part of using a combination of approaches. These procedures can result in amounts that may vary widely from the recorded estimate. The Consultation Paper indicates that, with regard to an auditor developing an independent estimate, the potential new standard could emphasize that the estimate is limited to outcomes within the range that are supported by sufficient appropriate audit evidence. However, such a statement may suggest a level of precision within a range of estimates that may not be achievable in all circumstances.

For example, some accounting estimates with relatively high estimation uncertainty may result in a range of 'reasonable' estimates, which could exceed the established materiality level, such as is the case in developing estimates for certain insurance reserves or mortgage servicing rights. Therefore, we do not believe it would be appropriate to limit the use of auditor judgment in evaluating the appropriateness of management's accounting estimates in this regard. Accordingly, we believe the potential new standard should recognize the inherent imprecision in developing a range of possible estimates.

#### *Identifying Significant Assumptions*

In accordance with the requirements in AU 328, in particular paragraphs 33-34, auditors identify significant assumptions that management used in making accounting estimates through understanding management's process and considering whether management has identified the significant assumptions and factors influencing the accounting estimate. As such, those assumptions identified by management would be included in the auditor's identification of significant assumptions, along with any additional significant assumptions the auditor may identify. However, the Consultation Paper questions whether it might be appropriate for the auditor to be required to identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate. We believe such an approach would be difficult to apply in practice, as there may be numerous assumptions not used in the development of management's accounting estimate, and it would be impractical for the auditor to assess the importance of each to the recognition or measurement of the accounting estimate. We believe a more practical approach, similar to the approach in ISA 540, would be to require the auditor to evaluate how management has considered alternative assumptions or outcomes and why it has rejected them or how management has otherwise addressed estimation uncertainty in making the accounting estimate when there is high estimation uncertainty that gives rise to significant risks.

---

<sup>1</sup> PCAOB Interim Standard AU sec. 342, Auditing Accounting Estimates, paragraph 10.



Office of the Secretary  
Public Company Accounting Oversight Board  
Page 5 of 6

## Use of Third Parties

### *Evaluating Audit Evidence*

As recognized in the Consultation Paper, auditors acquire information under varying circumstances from third parties to obtain audit evidence. In some circumstances, the auditor engages a specialist or uses specialists on staff for the purpose of evaluating the appropriateness of the model or developing an independent estimate; in other circumstances, the auditor may obtain information from third-party sources that provide the same information to the public. We believe that when information is provided to the auditor, and that same information is available to the public and is reliable, for example, in the case of level one and easier to value level two securities, the auditor can perform substantive audit procedures to evaluate their pricing and it is not necessary to perform further procedures to evaluate the methods and assumptions used to determine the price of such financial instruments.

However, when financial instruments are priced using unobservable inputs or require the use of significant assumptions and inputs, they are likely to have higher inherent risk. In this circumstance, it would generally be appropriate for the auditor to perform additional audit procedures to understand and evaluate the relevance and reliability of the information obtained from the third-party pricing service. For this reason, we believe the need to evaluate the methods and assumptions used to determine the pricing of financial instruments should vary based on the inherent risk of the instrument.

### *Relevance and Reliability of Evidence Obtained*

The Consultation Paper is proposing additional requirements with respect to evaluating the relevance and reliability of evidence obtained from third-party pricing sources that would require the auditor to perform an evaluation at the 'asset or liability' level. It is unclear whether the intention of the proposed requirements is meant to require the auditor to evaluate the relevance and reliability of audit evidence at an individual security basis (i.e., individual CUSIP number), or whether testing at a higher level would be acceptable. We do not believe testing at the individual security level is necessary in all situations, such as when a portfolio of investments includes items with similar characteristics, and we encourage the staff to consider clarifying this requirement in the potential new standard.

### *Proprietary Third Party Models*

We note the Consultation Paper is considering how a potential new standard could address audit evidence obtained from third-party pricing sources, and that a potential approach would be to require the auditor to evaluate the reliability of the evidence provided by the third-party pricing service, taking into account (a) the experience and expertise of the third party relative to the type of asset or liability being valued, and (b) the methods used by the third party in determining fair value for the specific securities being tested and whether the methodology used is in conformity with the applicable financial reporting framework. While we agree that the auditor should evaluate the experience and expertise of the third party



Office of the Secretary  
Public Company Accounting Oversight Board  
Page 6 of 6

relative to the type of asset or liability being valued, we have concerns about the auditor's, or management's, ability to test the proprietary models used to value certain investment products, due to the confidential nature of the models used by various pricing services. Company management and auditors are generally given the opportunity to obtain an understanding of a third-party pricing service's valuation process and methodology; however, they may not be permitted to access the proprietary information. Consequently, we believe any potential new standard should recognize these limitations.

\* \* \* \*

We appreciate your consideration of our comments and suggestions and would be pleased to discuss them with you at your convenience. Please direct any questions to Chris Smith, National Accounting & Auditing Professional Practice Leader at 310-557-8549 ([chsmith@bdo.com](mailto:chsmith@bdo.com)) and Susan Lister, National Director of Auditing at 212-885-8375 ([slister@bdo.com](mailto:slister@bdo.com)).

Very truly yours,

/s/ BDO USA, LLP

BDO USA, LLP

October 24, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Re: Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements***

Members of the Board:

I appreciate the opportunity to comment on the Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*. I applaud the PCAOB's ongoing effort to enhance the quality of audits and as a result, to help ensure the integrity and quality of financial reporting. I support the staff's proposal to issue a new single standard that addresses auditing of accounting estimates and fair value measurements, which would replace AU sec. 328, *Auditing Fair Value Measurements and Disclosures* and AU sec. 342, *Auditing Accounting Estimates*, and part of AU sec. 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*. A more comprehensive standard that is integrated with the risk assessment standards would enhance usefulness to users and provide a more effective approach to auditing a broad range of assets and liabilities that by their nature frequently are estimates, and not precise values subject to recurring, routine valuation processes.

The PCAOB has been responsive to developments in the financial markets, including through the issuance of Staff Audit Practice Alerts ("the Alerts") that directly, or indirectly address fair value measurements and other accounting estimates. I hope that the Staff will incorporate the guidance contained in the Alerts into the new single standard. I further suggest that the Staff consider developing additional guidance for recurring audit deficiencies, including use of fair value measurements determined at other than the financial statement reporting date, and reliance on internal controls and roll-forward procedures that may be inappropriate given the nonrecurring or market-based nature of the estimates, as well as additional guidance on auditing significant assumptions. Note that AU 328.25 through 328.39 conceptually address these issues, although given the recurring audit deficiencies related to these matters, more specific guidance and examples would be appropriate either in the new standard or in a Staff Audit Practice Alert that consolidates and expands the concepts now contained in Alerts No. 2, 3, 4 9 and 10.

Many of the questions for which the Staff seeks comment are directed to audit firms, or relate to matters for which others may have more expertise. Accordingly, I have

answered only selected questions. I have highlighted the original question in bold, followed by my response.

\*\*\*\*\*

**4. Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included within a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?**

The International Auditing and Assurance Standards Board issued ISA 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures*, which combines both accounting estimates and fair value measurements in a single framework. That standard incorporates the common attributes and provides an audit framework. It would be beneficial to carry forward the principles contained in AU sec. 328, AU sec. 342 and AU sec. 332 to a new single standard on auditing accounting estimates and fair value measurements, while considering the guidance contained in the risk assessment standards and in ISA 540, and further establishing more specific audit guidance on use of third parties.

The principle limitation to using a single standard is the risk that guidance on fair valuation becomes less transparent. For example, audit deficiencies noted instances where auditors failed to adequately verify inputs or the investment valuation model being used. The new standard should focus investment valuation-related issues in a contiguous discussion, to the extent possible, to ensure that auditors properly test the fair valuation process and understand the risks, possible assumptions and inputs to prevent valuation bias and errors.

**9. Are there considerations relevant to auditing accounting estimates and fair value measurements including other regulatory requirements specific to certain industries that the staff should take into account.**

The Investment Company Act of 1940 requires auditors of SEC registered investment companies to obtain an independent valuation, which the SEC Staff has interpreted to be an independent valuation different than that used by the investment company. Generally, most registered investment companies hold securities that are traded on public markets, although many investment companies may hold derivatives, swaps, and other unlisted investments. Accordingly, the single standard should inform auditors that valuation procedures for registered investment companies should comply with these and other statutory requirements.

**10. Should the requirements for identifying and assessing risks of material misstatement with respect to accounting estimates and fair value measurements – including risk assessment procedures – be included in**

**Auditing Standard No. 12 or be separately set forth in a potential new standard on auditing accounting estimates.**

Auditing Standard No. 12, *Identifying and Assessing Risks of Material Misstatement*, establishes requirements for identifying and assessing risks of material misstatement. It sets forth procedures for understanding a company's control environment and internal controls over financial reporting, and requires the auditor to identify significant accounts and disclosures and their relevant assertions based on risk factors. These procedures generally would encompass those procedures required to identify and assess risks of material misstatement with respect to accounting estimates and fair value. To avoid duplication, it would seem appropriate to include these requirements and supplemental guidance in Auditing Standard No. 12, with appropriate cross-reference in the new standard.

**13. In circumstances where the company uses information obtained from a third party, are there matters – such as information systems at third parties, controls that management has over the work of third parties, and controls at third parties – not currently addressed in AU sec. 324, *Service Organizations*, or other standards that the staff should consider.**

Many companies have service models that rely increasingly on third parties, including through software as a service (“SAAS”). SAAS may utilize a software licensing and delivery model in which software is licensed on a subscription basis and centrally hosted. AU sec. 324 does not specifically contemplate these contractual relationships and the pace at which specific software may be implemented and relied upon for specific applications, including fair valuation and investment trading functions.

**16. Are there certain types of accounting estimates or fair value measurements that should be presumed to be significant risks?**

Certain financial instruments that are subject to cash waterfall structures to distribute cash to various classes of ownership, investments with unobservable inputs, investments dependent on a complex capital or tax structure to derive all or part of their economic value, and investments whose value is dependent on a particular legal interpretation, as examples, should be presumed to present significant risks. However, there are many investments that are dependent on publicly disclosed factors, such as LIBOR, which historically have been published and generally accepted as independent, third party indices. It would be helpful if the proposed guidance would clarify the extent to which auditors may rely on these indices in good faith even though they frequently cannot be independently derived.

**18. Is the potential amendment to Auditing Standard No. 13 described above helpful in emphasizing the auditor's consideration of the applicable accounting framework when auditing significant accounts and disclosures?**

The potential amendment that clarifies that performance of substantive procedures for the relevant assertions of significant accounts and disclosures would involve testing of whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework is helpful in clarifying the auditor's consideration of the accounting framework.

**19. Should a potential new standard include specific audit procedures related to auditing disclosures of accounting estimates (e.g., disclosures on levels within the fair value hierarchy)?**

Many companies, especially within financial services, include substantial disclosures of financial instruments within the fair value hierarchy. The audit effort put into verifying these disclosures quite often is significant, costly, and has no impact on the balance sheet or statement of operations results. Specific audit procedures related to auditing the fair value hierarchy for financial instruments would be useful, including guidance on when it may be permissible to rely in part on a reporting entity's internal controls for developing and disclosing such information.

**26. Are the potential requirements described above for evaluating whether the company's method used to develop accounting estimates appropriate for both accounting estimates and fair value measurements?**

The potential requirements are broad and inclusive enough that they would appear appropriate for developing both accounting estimates and fair value measurements.

**27. In circumstances where the financial reporting framework does not specify the use of a particular valuation method, is the consideration of methods accepted by the company's industry relevant? Are there other criteria that auditors could use to evaluate the appropriateness of the company's method used to develop accounting estimates?**

Valuation methods used by the company's industry are relevant; however, the requirements should be clear that other methods may be appropriate where a method is not specified by the financial reporting framework or where the company has unique business attributes for which a different model may be more suitable.

**28. Would a requirement for the auditor to determine which assumptions used by management are significant assumptions present difficulties in practice? Should the staff consider a requirement for the auditor to identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate.**

The fair valuation process at some investment entities is complex, and may involve multiple fair valuation committees. For example, separate committees may address CDOs, swaps, private equity, real estate, privately structured notes, and other investments, each with multiple significant assumptions. Accordingly, it is



important to recognize that a single preparer may have a large number of assumptions. It is appropriate to include a requirement for the auditor to identify those assumptions that might be important to the recognition or measurement of the accounting estimate. However, it also is important to clarify that this process does not need to be performed for items that are immaterial or for which the probability of a material variation from the estimate determined by management is not significant.

I suggest adding other characteristics that mirror those listed on page 25 of the Staff Consultation Paper, including those assumptions that are associated with a future occurrence or outcome, such as “paydown” factors used in the valuation of certain asset-backed securities.

**31. Is the potential requirement described above appropriate for all types of accounting estimates? Are there other considerations that should be taken into account in applying this requirement to accounting estimates?**

The requirement that the auditor should test the information provided by the specialist, as if it were produced by the company, is conceptually sound. However, it may be difficult to obtain the inputs for models that were used by the specialist and to test that information and those models. As a result, the guidance should specify that it may be necessary to perform other procedures to enable the auditor to conclude on a particular accounting estimate. Those procedures may include back-testing the results of the specialist’s model or consideration of other independent and objective information.

**39. Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?**

It normally would be possible to obtain a third party source that is different from the source used by management. Auditors of registered investment companies are, in fact, required to follow such procedures. However, outside of this requirement, this procedure is unnecessary for liquid financial instruments, for which a recent trade (or a similar trade) may be indicative of fair value. Use of a different pricing service should produce a similar value as the inputs likely are drawn from the same market activity. This requirement could be problematic in those instances where the estimates are obtained from a market maker with unique proprietary information about the specific financial instrument being valued.

**40. Would the factors noted above help the auditor in evaluating the reliability and relevance of evidence obtained from third-party pricing sources? Are there other factors that are applicable in determining the reliability or relevance of evidence obtained from third-party pricing sources?**



The factors identified would be helpful to the auditor in evaluating the reliability and relevance of evidence obtained from third-party pricing sources. They provide a conceptual framework that could be adapted to most valuation situations. I suggest adding consideration of the internal controls at the third party, including those covered by SSAE 16 *Reporting on Controls at a Service Organization*.

\*\*\*\*\*

I appreciate the opportunity to share my viewpoints. If the Board has any questions regarding my comments, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Steven E. Buller".

Steven E. Buller  
Independent Trustee/Director

**From:** [Pw Carey](#)  
**To:** [Comments](#)  
**Cc:** [Pw Carey](#); [tc-pcarey@raland.com](mailto:tc-pcarey@raland.com); [Robert C. Miseyka](#)  
**Subject:** Staff Consultation Paper, Auditing Accounting Estimates and Fair Value Measurements  
**Date:** Monday, November 03, 2014 1:28:40 PM  
**Attachments:** [Pws COMMENTS Submitted Nov. 3rd, 2014 PCAOB August 19th, 2014 SCP Auditing Accounting Estimates Fair Value Measurements.pdf](#)  
[Pws COPY Risk Assessments via NIST Six Steps.doc](#)

---

Dear PCAOB Folks:

Good morning and hope you all are enjoying some nice EST weather....

- Please Note; We've attached our formal comments in support of the PCAOB's 'Fair Value Measurement' initiative regarding Securities, Derivatives et cetera.....
- We have attached both our comments and an example of a supporting Risk Assessment Strategy to your attention.....
- We hope there is a least one useful comment among the pearls.....

In closing, our best wishes in this regard and good luck, too as the goblins manning the gates and barriers to FAIR VALUE reform are spooky looking, at least from a distance....

Respectfully yours,

Pw Carey

Respectfully yours,  
Regards / Met vriendelijke groet  
Pw Carey  
Senior Independent IT Auditor, (GRC), CISA & CISSP  
Compliance Partners, LLC  
250 South Grove Ave.  
Suite 200  
Barrington, Illinois 60010 USA  
San Francisco-Chicago-Boston & Best, NL  
e-Mail [tc-pcarey@raland.com](mailto:tc-pcarey@raland.com) or [pwc.pwcarey@gmail.com](mailto:pwc.pwcarey@gmail.com)  
Tel. : 1-224-633-1378 or 1-650-264-9617 or 1-650-278-3731  
Fax : 1-847-683-1371  
<http://www.complysys.com>



1666 K Street, N.W.  
 Washington, D.C. 20006  
 Telephone: (202) 207-9100  
 Facsimile: (202) 862-8430  
[www.pcaobus.org](http://www.pcaobus.org)



## STAFF CONSULTATION PAPER

### ***AUDITING ACCOUNTING ESTIMATES AND FAIR VALUE MEASUREMENTS***

**AUGUST 19, 2014**

This paper was developed by staff of the Office of the Chief Auditor (the "staff") of the Public Company Accounting Oversight Board (the "Board" or "PCAOB"). It is not a statement of the Board, nor does it necessarily reflect the views of the Board or its members.

This paper discusses and solicits comment on certain issues related to auditing accounting estimates and fair value measurements. It describes the staff's preliminary views concerning the potential need for change and presents potential revisions to PCAOB standards in response to that potential need for change. This paper requests comment on these issues and on a possible approach to changing existing standards, as well as possible alternatives.

**The staff welcomes comment on the matters discussed in this paper. Written comments should be sent to the Office of the Secretary, PCAOB, 1666 K Street, N.W., Washington DC 20006-2803. Comments also may be submitted by email to [comments@pcaobus.org](mailto:comments@pcaobus.org) or through the PCAOB's website at: [www.pcaobus.org](http://www.pcaobus.org). All comments should refer to the Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*, on the subject or reference line and should be submitted no later than November 3, 2014.**

Questions about this paper should be directed to Martin F. Baumann, Chief Auditor (202/207-9192, [baumannm@pcaobus.org](mailto:baumannm@pcaobus.org)); Greg Scates, Deputy Chief Auditor (202/207-9114, [scatesg@pcaobus.org](mailto:scatesg@pcaobus.org)); Barbara Vanich, Associate Chief Auditor (202/207-9363, [vanichb@pcaobus.org](mailto:vanichb@pcaobus.org)); Nike Adesoye, Assistant Chief Auditor (202/591-4177, [adesoyen@pcaobus.org](mailto:adesoyen@pcaobus.org)); or Dominika Taraszkiewicz, Assistant Chief Auditor (202/591-4143, [taraszkiewicz@pcaobus.org](mailto:taraszkiewicz@pcaobus.org)).

# Summary of Comments on Pws\_COMMENTS\_Submitted\_Nov 3rd 2014\_PCAOB\_August 19th 2014\_SCP\_Auditing\_Accounting\_Estimates\_Fair\_Value\_Meas urements (2).pdf

---

Page: 1

---

 Number: 1 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 11:59:36 AM

---

**Dear PCAOB FOLKS:**

**Good morning and hope you all will receive our comments in the same spirit they were given.....an honest effort to help out, offered up by a citizen of the United States of America.....**

**Please Note: The over whelming majority of fraud is conducted around Financial Accounting by folks who look like you and me....this does not address Sovereign**

**Fraud, Capital Markets Fraud such a LIBOR et cetera...but it's a good start....looking forward to the 2nd Edition....**

**Please Note: All of our comments are from the point of view of an IT GRC Auditor specializing in Fraud.....Respectfully yours, Pw**

 Number: 2 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Highlight Date: 9/14/2014 12:07:14 PM -04'00'

---

## **Contents**

Introduction .....	3
The Potential Need for Standard Setting.....	6
A. Background .....	6
B. The Potential Need for Improvement.....	9
C. Current Requirements and Certain Audit Practices .....	12
1. Current Requirements.....	12
2. Certain Aspects of Current Practice.....	14
Staff Consideration of Alternative Approaches .....	15
A. Alternative Approaches .....	15
B. Overview of the Approach Being Considered by the Staff .....	17
Key Aspects of a Potential New Standard and Related Potential Requirements .....	19
A. Alignment with the Risk Assessment Standards.....	21
1. Identifying and Assessing Risks of Material Misstatement.....	22
2. Responding to the Risks of Material Misstatement .....	26
B. Substantive Procedures for Testing Accounting Estimates .....	29
1. Testing the Company's Process .....	30
2. Developing an Independent Accounting Estimate .....	38
3. Evaluating Audit Evidence from Subsequent Events .....	41
C. Use of Third Parties.....	43
1. Evaluating Audit Evidence from Third-Party Sources .....	44
Questions Related to Economic Impacts and Implications .....	47



## Introduction

The staff of the PCAOB's Office of the Chief Auditor is evaluating whether existing PCAOB standards relating to auditing accounting estimates and fair value measurements can and should be improved. This paper seeks additional information to help the staff assess the potential need for changes to the PCAOB standards in this important area and develop a possible approach for the Board's consideration.

As discussed in this paper, auditing accounting estimates and fair value measurements<sup>1</sup> has proven challenging to auditors. Over the last decade, there have been changes in the financial reporting frameworks relating to accounting estimates and an increasing use of fair value as a measurement attribute, together with new related disclosure requirements.<sup>2</sup> Through its oversight activities, the PCAOB has observed significant audit deficiencies in this area.<sup>3</sup> Deficiencies have been noted in audits performed not only under the standards of the PCAOB, but also under the standards of other standard setters around the world. For example, the past two surveys by the International Forum of Independent Audit Regulators ("IFIAR") found the highest number of deficiencies in audits of public companies to be in the area of fair value measurements.<sup>4</sup>

<sup>1</sup> This paper uses the terms "accounting estimate" and "fair value measurement" to have the same meaning as those terms have in AU sec. 342, *Auditing Accounting Estimates* ("AU sec. 342") and AU sec. 328, *Auditing Fair Value Measurements and Disclosures* ("AU sec. 328") and does not intend to convey that fair value measurements generally are not accounting estimates. The discussion of a potential new standard, including examples of possible requirements, generally uses the term "accounting estimate" to mean both accounting estimates and fair value measurements.


<sup>2</sup> The Financial Accounting Standards Board ("FASB") has issued standards relating to accounting estimates and fair value measurements. See footnote 16 for additional detail.

<sup>3</sup> See, e.g., *Report on Observations of PCAOB Inspectors Related to Audit Risk Areas Affected by the Economic Crisis*, PCAOB Release No. 2010-006 (September 29, 2010). See also *Report on 2007-2010 Inspections of Domestic Firms that Audit 100 or Fewer Public Companies*, PCAOB Release No. 2013-001 (Feb. 25, 2013).

<sup>4</sup> See generally *Report on 2013 Survey of Inspection Findings*, IFIAR (April 10, 2014), [https://www.ifiar.org/IFIAR/media/Documents/IFIARMembersArea/MemberUpdates/IFIAR-Inspection-Survey-9-April-2014\\_1.pdf](https://www.ifiar.org/IFIAR/media/Documents/IFIARMembersArea/MemberUpdates/IFIAR-Inspection-Survey-9-April-2014_1.pdf); and *2012 Summary Report of Audit Inspection Findings*, IFIAR (December 18, 2012),

Page: 3

---

 Number: 1      Author: PwCarey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Highlight      Date: 8/20/2014 12:38:00 PM -04'00'

---

The staff has had a project on its agenda for a number of years to consider replacement or amendment of the Board's existing standards on auditing accounting estimates and fair value measurements.<sup>5</sup> During that time, the staff has issued guidance, performed research, and conducted outreach to inform the project, particularly with respect to the use of third parties in determining fair value measurements. This work has included, among other things:

- Six Staff Audit Practice Alerts issued by the PCAOB between 2007 and 2012 that addressed, to varying degrees, auditing accounting estimates and fair value measurements;<sup>6</sup>
- Meetings with the Board's Standing Advisory Group (the "SAG") on auditing fair value measurements, including in 2007 and 2009;<sup>7</sup>
- Meetings with the Pricing Sources Task Force (the "Task Force")<sup>8</sup> in May, June, and September of 2011 that included discussions on fair value related topics, such as the use of third-party pricing sources and how financial instruments are valued in an illiquid market;
- The ongoing review of inspection findings related to audit deficiencies of both large and small firms concerning accounting estimates and fair value measurements, together with actions the firms have taken to address audit deficiencies; and

---

[https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR-2012-Summary-Report-of-Members-Inspection-Findings-18-Dec-12-\(2\).pdf](https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR-2012-Summary-Report-of-Members-Inspection-Findings-18-Dec-12-(2).pdf).

<sup>5</sup> See Office of the Chief Auditor, *Standard-Setting Agenda*, PCAOB (June 30, 2014), [http://pcaobus.org/Standards/Documents/201406\\_standard\\_setting\\_agenda.pdf](http://pcaobus.org/Standards/Documents/201406_standard_setting_agenda.pdf).

<sup>6</sup> See footnote 18 for a description of these Staff Audit Practice Alerts.

<sup>7</sup> See *Standing Advisory Group Meeting*, PCAOB (June 21, 2007), [http://pcaobus.org/News/Events/Pages/06212007\\_SAGMeeting.aspx](http://pcaobus.org/News/Events/Pages/06212007_SAGMeeting.aspx); and *Standing Advisory Group Meeting*, PCAOB (October 14–15, 2009), [http://pcaobus.org/News/Events/Pages/10142009\\_SAGMeeting.aspx](http://pcaobus.org/News/Events/Pages/10142009_SAGMeeting.aspx), respectively.

<sup>8</sup> The Task Force of the SAG was formed to assist the staff in gaining insight into issues related to auditing the fair value of financial instruments.



- Continuing coordination and discussion with PCAOB inspection personnel on related matters involving audit firm practices, such as: audit practices related to the use of third-party sources, including pricing services; the use of centralized pricing desks or groups by firms; and how audit firms currently apply specific substantive audit procedures to accounting estimates and fair value measurements.

As part of its work on this project, the staff has been exploring a possible recommendation to the Board for revisions to the Board's existing standards concerning the auditing of accounting estimates and fair value measurements. While the staff continues to analyze a number of alternatives, it is considering developing a single standard (the "potential new standard") for the Board to consider proposing. As envisioned by the staff, the potential new standard could replace AU sec. 342 and AU sec. 328, and replace certain or all of the requirements in AU sec. 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* ("AU sec. 332") (AU sec. 342, AU sec. 328, and AU sec. 332 are collectively referred to as the "existing standards"). As discussed further in this paper, the potential new standard could be designed to: (i) align with the Board's risk assessment standards;<sup>9</sup> (ii) generally retain the approaches to substantive testing from AU sec. 328 and AU sec. 342, but include requirements that apply to both accounting estimates and fair value measurements; (iii) establish more specific audit requirements relating to the use of third parties in developing accounting estimates and fair value measurements; and (iv) create a more comprehensive standard related to auditing accounting estimates and fair value measurements to promote greater consistency and effectiveness in application.

Before recommending to the Board a specific standard-setting proposal, the staff is conducting additional outreach by issuing this consultation paper to obtain information and views, beyond what it has learned from the Board's oversight activities. Specifically, the staff is seeking information on: (i) the potential need for changes to the Board's existing auditing standards to better address changes in the financial reporting frameworks related to accounting estimates and fair value measurements and (ii) current audit practices that have evolved to address issues relating to auditing accounting estimates and fair value measurements. For example, the staff is interested in obtaining information about current audit practices related to, among other things, the

---

<sup>9</sup> The Board's "risk assessment standards," Auditing Standards No. 8 through No. 15, set forth requirements relating to the auditor's assessment of, and response to, the risks of material misstatement in the financial statements. See *Auditing Standards Related to the Auditor's Assessment of and Response to Risk and Related Amendments to PCAOB Standards*, PCAOB Release No. 2010-004 (August 5, 2010).

use of centralized pricing desks or groups by accounting firms, and the use of third parties. The staff also is seeking commenters' views on a possible approach to changing existing standards, and the requirements of a potential new standard. Additionally, the staff is seeking relevant economic data about potential economic impacts of standard setting in this area, including data to inform the PCAOB's economic analysis associated with standard setting in this area.

The staff welcomes input on these matters and any other matters that commenters believe are relevant. While this paper focuses on a preliminary approach to a potential new standard and the audit requirements that might be included in this approach, the staff is also interested in commenters' views on alternative approaches that warrant consideration. This paper also includes general and specific questions and requests for pertinent information and data that will help the staff in developing improvements to the PCAOB's auditing standards in this area.

## The Potential Need for Standard Setting

### A. Background

In general, accounting estimates are typically derived from an initial measurement, re-measurement, or recognition of a transaction or event in the financial statements. Accounting estimates may be based on subjective or objective information (or both) and involve some level of measurement uncertainty. While some accounting estimates may be easily determinable, others are inherently subjective or complex. Fair value, as a measurement, is defined by the financial reporting frameworks. Under U.S. generally accepted accounting principles ("GAAP"), a fair value measurement represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.<sup>10</sup> Like other accounting estimates, fair value measurements may be based on subjective or objective information and generally involve measurement uncertainty. Accounting estimates and fair value measurements involving a high degree of subjectivity and judgment may be more susceptible to misstatement and generally require more auditor focus.

Financial statements and disclosures of most companies include accounting estimates. Examples of accounting estimates include allowances for doubtful accounts, impairments of long-lived assets, valuations of financial and non-financial assets, and estimates of revenues from contracts with customers.

<sup>10</sup> FASB Accounting Standards Codification ("ASC"), Topic 820, Fair Value Measurement, paragraph 10-35-2.

## Page: 6

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 7:46:42 AM

---

**Are we referring to potential acts of bad behavior forced upon the parties by the economic realities of raising funds from a Funds Management perspective rather than from a Risk Management perspective.....yep, that's what were referring to.....Respectfully yours, Pw**

---

 Number: 2      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 7:50:11 AM

---

**Does this refer to Hedge Accounting, too....such as 'hedge accounting' is designating one or more [hedged instruments] so that a there change in "FAIR VALUE" is an (Off Set) to the CHANCE in "FAIR VALUE" or CASH FLOWS of a 'HEDGED ITEM' ....; no opportunity here for fudging is there, ere hedging....Respectfully yours, Pw**



Currently, a number of auditing standards, issued at different points in time, address how the auditor considers accounting estimates, fair value measurements, derivatives, and investments in securities ("securities"). For example, the risk assessment standards, adopted by the Board in 2010, set forth general requirements for the auditor's assessment of and response to risk in an audit.<sup>11</sup> The risk assessment standards address audit procedures performed throughout the audit, from the initial planning stages through the evaluation of the audit results.

Also, the existing standards establish requirements that relate specifically to auditing accounting estimates, fair value measurements, derivatives, and securities. The Board adopted the existing standards in 2003 on an interim basis along with other standards of the American Institute of Certified Public Accountants ("AICPA") in existence at the time.<sup>12</sup>

Briefly, the existing standards cover the following areas:



- AU sec. 328 (originally issued in January 2003) – contains guidance and requirements related to auditing the measurement and disclosure of assets, liabilities, and specific components of equity presented or disclosed at fair value in financial statements.<sup>13</sup>
- AU sec. 332 (originally issued in September 2000) – contains guidance and requirements related to planning and performing audit procedures for assertions about derivative instruments, hedging activities, and investments in securities. Its scope includes, among other things, requirements for auditing the valuation of derivative instruments and securities, including those measured at fair value.<sup>14</sup>

<sup>11</sup> See PCAOB Release No. 2010-004.

<sup>12</sup> On April 16, 2003, the PCAOB adopted on an interim, transitional basis, the generally accepted auditing standards, described in the AICPA's Auditing Standards Board's ("ASB") Statement on Auditing Standards No. 95, *Generally Accepted Auditing Standards*, then in existence. Since that time, the Board has superseded or amended many of those auditing standards and has been engaged in updating and reconsidering the remaining standards and, more recently, aligning them with the risk assessment standards.

<sup>13</sup> See *generally* AU sec. 328.01.

<sup>14</sup> See *generally* AU secs. 332.01–.04.

## Page: 7

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 7:53:35 AM

---

**Can they also do open heart surgery while standing on one foot....?...give us a break, it's at this point in time they should be required to call in outside expertise knowledge to assist in conducting an audit that can protect the interests of the Investment Community....Pw**

---

 Number: 2      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 8:05:48 AM

---

**Does this take into account cross-border jurisdictional disputes, Safe Harbor, multi-layers of imbedded derivatives, and multiple proxys and multi-layers of Counter-Party Credit Exchanges (Regulated) and OTC's (Un-Regulated)....which reminds us, that Dodd-F bill (HR contains 253 Exemptions and only 800 plus use of the term...."may"...as in we may follow the rules or we may not.....is this our standard for protecting the interests of the investment community, (aka: that little guy standing in the corner...shivering) not that fat turkey who based on recent history, is above the law.....oops, please disregard that inadvertent editorial....Respectfully yours, Pw**



- AU sec. 342 (originally issued in April 1988) – contains guidance and requirements related to auditing accounting estimates.<sup>15</sup>

Since the issuance of the existing standards, the financial reporting frameworks have continued to evolve. Over the last decade, there have been changes in the financial reporting frameworks related to accounting estimates and an increasing use of fair value as a measurement attribute, along with new disclosure requirements.<sup>16</sup> FASB's adoption of a definition of fair value for financial reporting purposes provided clarification on how fair value should be measured; for example, market participant assumptions must now be considered.<sup>17</sup>

Financial instruments also continue to evolve. The complex nature of some financial instruments creates challenges in determining their value, which can be based primarily on unobservable inputs (that is, inputs not corroborated by market data). As a result, many companies and auditors use third parties, including pricing services, to obtain information relevant to determining and auditing fair value or estimates of fair value for financial instruments, which may or may not be developed using unobservable inputs.<sup>2</sup>

In addition, a number of other accounting estimates in a company's financial statements may be developed by management using information provided by third parties. For example, companies often use a valuation specialist to inform

<sup>15</sup> See generally AU sec. 342.01.

<sup>16</sup> See, e.g., *Statement of Financial Accounting Standards ("SFAS") No. 159: The Fair Value Option for Financial Assets and Financial Liabilities*, FASB (February 2007), <http://www.fasb.org/pdf/fas159.pdf>. See also paragraph B41 of *SFAS No. 141 (Revised 2007): Business Combinations*, FASB (December 2007), <http://www.fasb.org/pdf/fas141r.pdf>, at 62 (listing in the basis for conclusions as a reason to eliminate the pooling method: "Both Boards observed that the pooling method is an exception to the general concept that exchange transactions are accounted for in terms of the fair values of the items exchanged."). See also *Accounting Standards Update 2014-09, Revenue from Contracts with Customers (Topic 606)*, FASB (May 2014), <https://asc.fasb.org/imageRoot/00/51801400.pdf>.

<sup>17</sup> See FASB ASC subparagraph 820-10-05-1C ("Because fair value is a market-based measurement, it is measured using the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk. As a result, a reporting entity's intention to hold an asset or to settle or otherwise fulfill a liability is not relevant when measuring fair value").

## Page: 8

Number: 1 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 10:03:12 AM

**But wait...there's beams of hope of light flowing from the SEC's wand-of-clarification...addressing 'hedge accounting' such as the following:**

ISDA had requested that the SEC staff determine whether hedge accounting under U.S. GAAP should be terminated if a derivative that is designated as a hedging instrument is novated to a different counter-party with the same financial terms. The SEC staff's guidance indicates that it would not object to a conclusion for accounting purposes that the original derivative contract has not been terminated and replaced with a new derivative, nor would it object to the continuation of the existing hedging relationship. This guidance is specific to situations in which the terms of the contract remain the same, excluding changes that were caused by the novation, and any of the following circumstances exist:

For an OTC derivative entered into applying the mandatory clearing requirement, an entity voluntarily clears the OTC contract through a central counter-party, even if the counter-parties did not agree to clearing and novation when they entered into the transaction;

- For an OTC derivative entered into applying the mandatory clearing requirement, the counter-parties agree in advance to clear through a central counter-party according to standard market terms and conventions, and the entity's hedging documentation describes the counterparties' expectations that the OTC derivative will be novated to the central counter-party; or

- A counter-party to an OTC derivative who is prohibited by the Act (or is expected to be prohibited) from engaging in certain types of derivative transactions novates the underlying OTC derivative contract to a consolidated affiliate that is not insured by the FDIC and does not have access to Federal Reserve credit facilities.

.....(just more mud)...Doesn't make sense to me, but then I'm just a Citizen.....

Lastly, we've never met a Novation we didn't want to kick to the curb.....  
Respectfully yours, Pw Carey

Number: 2 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 8:15:36 AM

**Who pays for these Pricing Services....?....as in, we'll give you fifty bucks if you give us a really, really, really 'fair value'.....quick note: The more there is greater layers of complexity associated with a financial instrument/product the greater is the opportunity for FRAUD.....that is difficult to detect and then prove in a court of law.....Respectfully yours, Pw**



management's estimation of the value of assets acquired and liabilities assumed in a business combination or to assess whether intangible assets are impaired.

The complexity and risks of material misstatement associated with certain accounting estimates and fair value measurements, as well as the changes in the overall economic environment affecting estimates since the adoption of the existing standards, have led the staff to prepare several Staff Audit Practice Alerts to highlight considerations relevant to auditing accounting estimates and fair value measurements.<sup>18</sup>

## **B. The ~~Potential~~ Need for Improvement**

The potential need for improvement to the Board's standards in the area of accounting estimates and fair value measurements is illustrated by a number of factors that are summarized briefly below. These include: (i) audit deficiencies noted by the PCAOB and by other audit regulators; (ii) the changes in the financial reporting frameworks relating to accounting estimates, including fair value measurements; (iii) changes in the methods used to develop accounting estimates and fair value measurements, including the growing reliance on the work of third parties; and (iv) concern expressed by some auditors over perceived inconsistencies in the existing standards.

As previously noted, revisions to the financial reporting frameworks affect the use of management judgments and estimates in significant accounts. Recently, for example, in May 2014, the FASB and the International Accounting Standards Board issued new requirements for recognizing revenue from contracts with customers. The recognition of revenue under the new accounting standard requires, among other things the determination of a transaction price, which may include variable consideration; the allocation of the transaction price to the performance obligations in the contract; and

<sup>18</sup> Staff Audit Practice Alerts relevant to auditing accounting estimates and fair value measurements include: (1) *Matters Related to Auditing Fair Value Measurements of Financial Instruments and the Use of Specialists*, Staff Audit Practice Alert No. 2, (December 10, 2007); (2) *Audit Considerations in the Current Economic Environment*, Staff Audit Practice Alert No. 3 (December 5, 2008); (3) *Auditor Considerations Regarding Fair Value Measurements, Disclosures, and Other-Than-Temporary Impairments*, Staff Audit Practice Alert No. 4 (April 21, 2009); (4) *Auditor Considerations of Litigation and Other Contingencies Arising from Mortgage and Other Loan Activities*, Staff Audit Practice Alert No. 7 (December 20, 2010); (5) *Assessing and Responding to Risk in the Current Economic Environment*, Staff Audit Practice Alert No. 9 (December 6, 2011); and (6) *Maintaining and Applying Professional Skepticism in Audits*, Staff Audit Practice Alert No. 10 (December 4, 2012).




## Page: 9

---


 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 8:20:21 AM

---

**Are these 'valuation specialists' the same folks who worked for Moody's & S&P, et al...during the TARP fiasco and are they the same folks who rated TOXIC/CRAP Securities AAA.....hope not.....Respectfully yours, Pw**

 Number: 2      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Cross-Out      Date: 11/3/2014 8:21:10 AM

---

 Number: 3      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 8:22:42 AM

---

**Please limit your use of caveats, which is much better than the Dodd-F baseline....keep up the good effort....Pw**

determination of when performance obligations are satisfied. These procedures may involve adjusting the transaction price for the time value of money, estimating the amount of variable consideration to which the company will be entitled, and estimating the relative standalone selling price.<sup>19</sup> Given that revenue is one of the most important measures used by investors, and that improper revenue recognition represents a presumed fraud risk,<sup>20</sup> the staff expects that revenue recognition and the related accounting estimates will continue to warrant significant audit attention.

The complexity inherent in auditing certain accounting estimates and fair value measurements also has been raised at various meetings of the SAG.<sup>21</sup> In these meetings, many SAG members recognized the complexities related to accounting estimates and fair value measurements, and were generally supportive of the Board's standard-setting efforts in these areas. Discussions with the SAG led to the formation of the Task Force, which included auditors, issuers, investors, regulators, and representatives from several pricing sources. The Task Force held several meetings in 2011 and focused primarily on the use of third-party pricing sources to determine fair value of financial instruments, including issues observed when auditing fair value measurements of financial instruments that are not actively traded and issues regarding how third-party sources develop their estimates. During the meetings, information was obtained about the different valuation methodologies used by pricing sources, including the extent of transactions of comparable instruments and broker quotes used in the development of prices. Other topics discussed included types of substantive audit procedures that are used when a range of acceptable prices exists and auditors' use of centralized approaches to performing certain substantive procedures.

The staff's assessment of the potential need for changes to the existing standards also has been informed, in part, by the work and experience of other auditing standard setters that have updated and amended their standards. For example, the International Auditing and Assurance Standards Board ("IAASB") in 2009 issued a single standard that establishes requirements related to auditing accounting estimates and fair value estimates, International Standard on Auditing 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* ("ISA 540"). The ASB issued an analogous standard, AU-C 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* ("AU-C

<sup>19</sup> See generally *Accounting Standards Update 2014-09, Revenue from Contracts with Customers*, FASB in Focus (FASB, Norwalk, Connecticut), May 28, 2014 at 1.

<sup>20</sup> See generally paragraph 68 of Auditing Standard No. 12, *Identifying and Assessing Risks of Material Misstatement*.

<sup>21</sup> See footnote 7.

## Page: 10

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 8:31:54 AM

**We believe this is a good time to introduce the concept of Auditor's vs Treasurers be modified to Auditor's Collaborating with Treasurers to understand their daily/quarterly juggling of the books; (P&L, Cash Flows, Debt Equity, Assets and Liabilities, et cetera) both near-term and long term for a clear and true representation of the forces driving many of their management decisions and the significant GAPS in their knowledge and expertise surrounding derivatives....to name just one....**

**....Respectfully yours, Pw**

 Number: 2      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 10:17:05 AM

**Provide entities with 30 days from time of identification of improper revenue recognition an opportunity to correct and re-published, before instantaneous\$10,000.00 dollar per day penalties are invoked up to a maximum fine, based upon the size of the restatement....Respectfully yours, Pw**

 Number: 3      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 10:21:37 AM

**Here's a thought.....Perform a small number of Stress Tests vs Investment Grade Indices....and compare the results (near-term, mid-term & long-term).....**

**Impact of the Counter-Party Credit Risk Spread Exposure....**

**Calculate your credit curve by buying 5 years of Credit by converting the Credit curve with the Credit Recovery....(a sliding scale, not static...)....Pw**

540").<sup>22</sup> However, notwithstanding these revisions to auditing standards, the issue of fair value measurement continues to be an issue of ongoing concern for audit regulators globally.<sup>23</sup>

Observations from the Board's oversight activities may illustrate some of the challenges of auditing accounting estimates and fair value measurements. The Board's inspection staff has identified audit deficiencies, at both large and small audit firms, that relate to various types of fair value measurements and accounting estimates.<sup>24</sup> Deficiencies were observed relating to auditing data and testing assumptions used in determining fair values, as well as issues relating to understanding information provided by third-party pricing sources sufficient to assess reliability and relevance of the information. Deficiencies were noted related to various aspects of substantive testing, including numerous situations in which auditors did not adequately test fair value measurements. Deficiencies were also noted related to auditing accounting estimates for a variety of audit areas, including the allowance for doubtful accounts or loan losses, goodwill and intangible asset impairment, inventory valuation allowances, and income tax valuation allowances.

The staff is in the process of reexamining the existing standards in view of the nature and extent of the Board's inspection findings. The staff understands that some auditors have expressed concern over perceived inconsistencies in the existing standards, including the existing standards' scope and required procedures. The staff


<sup>22</sup> The IAASB and ASB did not issue a separate standard for auditing derivatives and securities.

<sup>23</sup> See generally *Report on 2013 Survey of Inspection Findings*, IFIAR (April 10, 2014) at 1 [https://www.ifiar.org/IFIAR/media/Documents/IFIARMembersArea/MemberUpdates/IFIAR-Inspection-Survey-9-April-2014\\_1.pdf](https://www.ifiar.org/IFIAR/media/Documents/IFIARMembersArea/MemberUpdates/IFIAR-Inspection-Survey-9-April-2014_1.pdf), ("The survey, conducted in 2013, indicates the persistence of deficiencies in important aspects of audits and that there is a basis for ongoing concerns with audit quality."); *id.* at 2 ("For audits of listed [public interest entities (e.g., publicly traded companies)], the three inspection themes with the highest number of findings were: [f]air value measurement, [i]nternal control testing, and [a]dequacy of financial statements and disclosures.") (emphasis added). See also *2012 Summary Report of Audit Inspection Findings*, IFIAR (December 18, 2012), [https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR-2012-Summary-Report-of-Members-Inspection-Findings-18-Dec-12-\(2\).pdf](https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR-2012-Summary-Report-of-Members-Inspection-Findings-18-Dec-12-(2).pdf), at 2 ("The survey results indicate that the largest number of inspection findings in audits of public companies occurred in the following areas: [f]air value measurements; [i]nternal control testing; and [e]ngagement quality control reviews.") (emphasis added).

<sup>24</sup> See PCAOB Release No. 2010-006. See also PCAOB Release No. 2013-001.

Page: 11

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Highlight      Date: 11/3/2014 8:34:31 AM

---

has observed that while the existing standards became effective at different times and differ in scope, they share a number of common concepts and, in certain cases, common audit procedures.

The factors discussed previously, including the effect of changes to the financial reporting frameworks relating to accounting estimates and fair value measurements since the issuance of the existing standards, the complexity of certain accounting estimates and fair value measurements, and the evolution of auditing practices for testing the valuation of financial instruments, suggest the need to consider updating the existing standards. Further, the number of audit deficiencies identified in the Board's oversight activities also have led the staff to consider whether changes to the existing standards could improve audit quality, including by addressing perceived inconsistencies, further integrating the requirements of the existing standards with those of the risk assessment standards, and adding requirements in certain areas, such as with respect to the auditor's use of third parties.

## **C. Current Requirements and Certain Audit Practices**

### **1. Current Requirements**

As discussed above, current requirements of the PCAOB relating to auditing accounting estimates and fair value measurements are in the risk assessment standards and also in the existing standards.

The risk assessment standards set forth the foundational requirements for identifying, assessing, and responding to risk in an audit, and for evaluating the results of the audit. The risk assessment standards include requirements that apply broadly in an audit and contain several requirements that are specific to accounting estimates. Those requirements include specific procedures regarding identifying and assessing risks of material misstatement in accounting estimates,<sup>25</sup> evaluating identified misstatements in accounting estimates,<sup>26</sup> and evaluating potential management bias associated with accounting estimates.<sup>27</sup>

The existing standards contain specific procedures relevant to auditing accounting estimates and fair value measurements. AU sec. 328 and AU sec. 342 provide the primary procedural requirements related to auditing fair value

---

<sup>25</sup> See *generally* paragraph 13 of Auditing Standard No. 12.

<sup>26</sup> See paragraph 13 of Auditing Standard No. 14, *Evaluating Audit Results*.

<sup>27</sup> See paragraph 27 of Auditing Standard No. 14.

measurements and accounting estimates. These standards share common approaches for substantively testing accounting estimates and fair value measurements and certain common concepts under each approach. In general, there are three approaches common to both standards, as discussed below. When performing an audit, the auditor selects one or a combination of these approaches.

- Testing management's process.



- The auditor generally evaluates significant assumptions used by management for reasonableness and tests the data used, including evaluating whether the data is complete, accurate and relevant.<sup>28</sup>
- The auditor also evaluates the consistency of assumptions used by management.<sup>29</sup>

- Developing an independent estimate.



- The auditor can use management's or alternative assumptions to develop an independent estimate or an expectation as to the estimate.<sup>30</sup>

- Reviewing subsequent events or transactions.



- The auditor can use events or transactions occurring subsequent to the balance sheet date but prior to the date of the auditor's report to provide evidence about the reasonableness of the estimate.<sup>31</sup>

In addition to the common concepts described above, AU sec. 328 specifies additional procedures for testing management's process and developing an independent estimate.<sup>32</sup> For example, when the company estimates fair value using a valuation method, AU sec. 328.18 requires the auditor to evaluate whether the company's method of measurement is appropriate in the circumstances. AU sec. 332 primarily addresses auditing derivative instruments and the related assertions. This

<sup>28</sup> See generally AU sec. 342.11 and AU secs. 328.26–.39.

<sup>29</sup> *Id.*

<sup>30</sup> See generally AU sec. 342.12 and AU sec. 328.40.

<sup>31</sup> See generally AU sec. 342.13 and AU secs. 328.41–.42.

<sup>32</sup> See generally AU secs. 328.26 –.40.

## Page: 13

 Number: 1 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 8:48:02 AM

**Does this include addressing some of the following positive and negative aspects impacting both Exchange Traded Derivatives vs OTC Derivatives:**

**How the market changes over time**

**How Exchange Rates Change Over Time**

**Changes in Market Rates**

**Potential Exposure of a Derivative Over-Time**

**Spot Exchange Market Rates Over-Time**

**Periodic Cash Flows That Settle Over-Time**

**Counter-Party Transactions...**

**Potential Liability to a Counter-Party**

**EPE Expected Positive Expense**

**ENE Expected Number Expense (Over Multiple Jurisdictions)....**

**Margin or Netted....? it's a choice.....**

**Credit Exposure**

**Credit Risk Premium (that the Counter-Party might not Perform)**

**What Assets Do we need to Find?**

**What is our Margin Risk based upon our Liquidity Risks....? and what about CVA....? CREDIT VALUE ADJUSTMENTS.....how many folks out there in the Great White Way understand, really understand what this all means...**

**Ok, just pick one....Respectfully yours, Pw**

 Number: 2 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 8:51:55 AM

**Using the term 'management' and 'independent estimate' in the same sentence.....is just plain silly...or if you prefer...it's an oxymoron....dummy....(aka: Our President is a Genius, per say)....Respectfully yours, Pw**

 Number: 3 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 8:54:48 AM

**Or, evidence of other frauds being perpetrated at another previous point in time....neat eh?.....Respectfully yours, Pw**



standard also includes requirements regarding auditing valuation, including valuation based on an investee's financial results and testing assertions about securities based on management's intent and ability.<sup>33</sup>

## **2. Certain Aspects of Current Practice**

As described above, the Board, through its oversight activities, has observed practice issues and reviewed inspection findings relating to the auditor's evaluation of accounting estimates and fair value measurements. The staff understands that, in response to such inspection findings, some audit firms have taken steps to modify their internally developed audit guidance to improve compliance with the existing standards.



The PCAOB staff also has obtained information and conducted outreach to further understand current firm practices. The staff understands that many firms with international audit practices are familiar with and use ISA 540. Additionally, the staff has conducted outreach relating to how audit firms use third-party sources in the determination of accounting estimates and fair value measurements, including through the Task Force. The staff's understanding is that, depending on the nature of the estimate, such third-party sources may include, among others:

- Pricing services, which may provide pricing information generally available to customers; and
- Specialists,<sup>34</sup> who may develop independent estimates or assist in evaluating a company's estimate or the work of the company's specialist.


Some larger audit firms have implemented centralized approaches to developing independent estimates of fair value measurements of financial instruments. These firms may use centralized, national-level pricing desks or groups to perform certain procedures relating to the pricing of financial instruments. The level of information provided by these centralized groups to engagement teams varies. In some cases, the national-level pricing desk obtains price quotes from third-party pricing services and provides these quotes to the audit engagement team. In other cases, the national-level pricing desk itself may develop estimates of fair value for certain types of securities.

<sup>33</sup> See generally AU secs. 332.28 – .34 and AU secs. 332.56 – .57.

<sup>34</sup> The staff's agenda has a separate project relating to the use of specialists, *Auditors' Responsibilities with Respect to Other Accounting Firms, Individual Accountants, and Specialists*. See Office of the Chief Auditor, *Standard-Setting Agenda*, PCAOB (June 30, 2014), [http://pcaobus.org/Standards/Documents/201406\\_standard\\_setting\\_agenda.pdf](http://pcaobus.org/Standards/Documents/201406_standard_setting_agenda.pdf).

Page: 14

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 9:02:44 AM

---

**We must have missed it along the way....but we didn't see any statistics, standards, regulations, testing procedures addressing:**

**Corporate Culture,**

as in a fish stinks from the head.....(aka: Corp. Culture drives the majority (90%) of all fiduciary, ethical, business, regulatory decisions made on a daily, on-going basis.....(more or less)....via the invisible Corp. thumb is on the scales measuring 'Fair Value' .....just a thought....looking forward to seeing Corp. Culture addressed in the future....Respectfully yours, Pw

National-level pricing desks or valuation specialists employed by audit firms sometimes perform an analysis of prices obtained from pricing services, interact with the pricing services to obtain an understanding of controls and methodologies, and may provide information to inform an audit engagement team's risk assessment or evaluation of audit differences. In other cases, engagement teams do more of this work themselves.

As will be further discussed, the staff is exploring whether audit procedures tailored to the source of information used by the auditor are appropriate for developing an independent estimate. The staff is also seeking comment on emerging developments in current audit practices, particularly those related to the use of third parties including pricing services. The staff is specifically requesting views and relevant data on the following:

Questions:

1. Does the information presented above reflect aspects of current audit practice? Are there additional aspects of current practice, of both larger and smaller audit firms – including centralized testing, the use of third parties, or specific challenges to auditing accounting estimates and fair value measurements – that are relevant to the staff's consideration of the need for standard setting in this area?
2. The staff understands differences may exist in the use of centralized or national-level pricing desks at audit firms. The staff is interested in current practice for interaction between national-level pricing desks and engagement teams. For example, how (and by whom) are national-level pricing desks supervised given the engagement partner's responsibility under the risk assessment standards? How should these considerations affect auditing standards?
3. What other issues relevant to the need for standard setting should be considered by the staff?

## Staff Consideration of Alternative Approaches

### A. Alternative Approaches

The staff has identified a number of alternative approaches that the Board may wish to consider to address the issues raised regarding auditing accounting estimates and fair value measurements. The staff is interested in views relating to these alternative approaches, which are summarized below, together with certain considerations that may be relevant to the appropriateness of those alternatives.

## Page: 15

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 9:11:06 AM

---

**As in one Latin American country, (Brazil) all Security Transactions are Registered....regardless.....and to go one further, each Registered Transaction must be published to the outside world for Public viewing and review, and published to the Regulatory Industries.....what a concept.....this could also be implemented whenever the PCAOB conducts an assessment/investigation of the Audit Services Industry.....Push the results to the outside world for the Public's viewing and review.....or, Provide a Notice that if the Investment Community would like to view the PCAOB's report they can contact the following individual at the entity contained in the Report.....Respectfully yours, Pw**

---

 Number: 2      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 10:26:13 AM

---

**Does your efforts in knowledge gathering come with a 'Get Outta Jail Free' card.....for those you all interview, and document and identify.....?**

**Respectfully yours, Pw**

### ***Issue Staff Guidance***

One alternative approach to standard setting would be for the staff to issue additional staff guidance. Since 2007, the PCAOB has issued six Staff Audit Practice Alerts that discuss various issues relating to auditing accounting estimates and fair value measurements.<sup>35</sup> The staff has considered issuing additional practice alerts or other staff guidance specific to the use of third parties, such as pricing services.<sup>36</sup> This approach could provide targeted guidance to auditors in a relatively short period of time. However, guidance issued by the staff would be limited to discussing the auditor's application of the existing standards and therefore may not be a long-term solution to the issues raised in this paper regarding auditing accounting estimates and fair value measurements.

### ***Develop a Separate Standard on Auditing Fair Value of Financial Instruments in Addition to the Existing Standards***

The staff has considered developing a separate standard that would specifically address auditing the fair value of financial instruments. This approach could provide a framework for auditors specific to an area that may pose significant auditing challenges. Existing PCAOB standards, however, already include requirements for auditing fair value measurements and for auditing derivatives and securities, and the addition of a separate standard could result in confusion and potential inconsistencies in the application of these standards. Additionally, the auditing issues pertinent to accounting estimates and fair value measurements, including financial instruments, inherently overlap.

### ***Enhance Existing Standards on Auditing Accounting Estimates and Fair Value Measurements Through Targeted Amendments***

The staff has considered amending, rather than replacing, the three existing standards relating to auditing accounting estimates, fair value measurements, derivatives, and securities. This approach could involve fewer changes to firms' existing audit methodologies. However, retaining multiple standards with similar requirements would not eliminate redundancy and could result in confusion and potential inconsistencies in the application of the standards. In addition, the nature and extent of

<sup>35</sup> See footnote 18.

<sup>36</sup> Other standard setters have issued guidance relating to their existing standards. For example, the IAASB issued International Auditing Practice Note 1000, *Special Considerations in Auditing Financial Instruments* (December 16, 2011), to provide guidance to auditors when auditing fair value measurements of financial instruments.



Page: 16

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 9:22:45 AM

---

**Provide the Auditor, with the Blue Attestation Screen of Death Certificate (the one with the Gold Trim Filigree )....which states the following:**

**At this point in time, based upon the information and data provided by [insert entities name here] management team [insert full names of the management team here] we cannot attest to the correctness and/or accuracy of their Fair Value estimates, as they have been applied by this Management Team to this entities assets and liabilities**

**.....Respectfully yours, Pw Carey**

amendments that could be made to the existing standards could essentially result in new standards.

***Issue a New Single Standard That Addresses Auditing of Accounting Estimates and Fair Value Measurements and Supersedes the Existing Standards***

As discussed in this paper, the staff is currently considering developing a single standard on auditing accounting estimates and fair value measurements for the Board to consider proposing. The potential new standard the staff is considering would replace the existing standards. While this approach to standard setting may involve more significant change to existing PCAOB standards, a single standard on auditing accounting estimates and fair value measurements could provide a more comprehensive approach to auditing accounting estimates and fair value measurements that could promote more consistent auditor performance. In addition, a potential new standard that is further integrated with the risk assessment standards could help auditors improve their overall assessments of and responses to risks of material misstatement, including risks associated with accounting estimates and fair value measurements.

While this paper focuses on the development of a potential new standard, the staff is continuing to consider the various approaches described above and is seeking commenters' views on these matters.


**B. Overview of the Approach Being Considered by the Staff**

As noted above, based on research and outreach to date, the staff is considering developing a single standard for the Board to consider proposing that would supersede AU sec. 328 and AU sec. 342, and much of AU sec. 332. The potential new standard could be designed to: (i) align with the risk assessment standards; (ii) generally retain the approaches to substantive testing from AU sec. 328 and AU sec. 342, but include requirements that apply to both accounting estimates and fair value measurements; (iii) establish more specific audit requirements related to the use of third parties in developing accounting estimates and fair value measurements; and (iv) create a more comprehensive standard related to auditing accounting estimates and fair value measurements to promote greater consistency and effectiveness in application.


<sup>1</sup>Notably, the research and outreach conducted by the staff to date have not led the staff to initially conclude that the common approaches for testing accounting estimates and fair value measurements in the existing standards should be replaced. The potential new standard also could take into account the various ways that auditors develop independent estimates.

## Page: 17

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Highlight      Date: 11/3/2014 10:32:29 AM

---

 Number: 2      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 10:34:26 AM

---

**Then why are you all taking up our time and courteous attention, if you don't see the need....(aka: nothing to see here, keep moving.....nothing to see here....keep moving...) Respectfully yours, Pw**



A potential new standard also could supersede the requirements in AU sec. 332 related to auditing the valuation of derivatives and securities. AU sec. 332 includes guidance and requirements related to auditing assertions, other than valuation with respect to derivatives and securities, that in many cases are duplicative of the requirements in the risk assessment standards. The staff is interested in commenters' views on (i) whether to supersede AU sec. 332 in its entirety, (ii) whether elements of AU sec. 332 should be retained, and (iii) whether enhancements could be made to this standard that could result in improved audit quality.

The staff is requesting views and relevant data on the following:

Questions:

4. Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included within a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?
5. Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition, that the staff should specifically take into account in developing a potential new standard?
6. Are there other considerations relating to the alternatives explored, including other alternatives not discussed in this paper, that the staff should consider in connection with this project?
7. Based on commenters' experience in applying ISA 540 (or AU-C 540), are there any aspects, positive or negative, of a single-standard approach that the staff should consider in connection within a potential new standard? Are there any other lessons learned from the implementation of ISA 540 (or AU-C 540) that the staff should consider in its approach to standard setting in this area?
8. If AU sec. 332 were to be superseded, are there elements that should be retained? With respect to derivatives and securities, are there enhancements related to auditing assertions other than valuation that the staff should consider?

## Page: 18

Number: 1 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 9:53:49 AM

**Yes, yes, yes.....&....yes, such as the following considerations must be addressed and resolved to protect the interests of the Investment Community....and it's chubby cousin Sarah Guv.**

**Always think; '...what's best for that little guy shivering in the corner?.....':**

**Adjust Market to Market Derivatives Processes from 15 years ago....  
updated to LIBOR (London Inter-Bank Obligation Rates) currently undergoing billions of dollars in fines and penalties for fraud by all major banks...about 15 more or less....**

**How do you take the Credit Risk for a Bond into account...**

**All Bond Cash Flows are Positive...**

**The Risk Free Rate....Discounting The Risk Premium**

**How to Measure a Credit Risk Swap?:**

**The Entire Port Folio Analysis**

**Credit-Risk Premium**

**Uncertainty Estimates...**

**Bi-Lateral Notes of a Cash Flow Swap.....spread out to 15 years....or longer....or shorter...**

**Market Risk vs Credit Risk....**

**Also consider The Survival Rate...business decisions made when a Counter-Party may not be around any longer in time to pay off their loan obligation and/or debt obligation...and how should this be handled....with another derivative loan....?**

**Place boundaries on some hedging activities when faced with Extreme Adverse Events....(aka: no tingo dinero)....Respectfully yours,  
Pw Carey**

Number: 2 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 11:10:07 AM

**Don't forget to reach out to the EU in Europa....as they have a different way of looking at things, such as the following:**

**The International Accounting Standards Board (IASB) today announced the completion of a package of amendments to the accounting requirements for financial instruments. The amendments:**

- 1. bring into effect a substantial overhaul of hedge accounting that will allow entities to better reflect their risk management activities in the financial statements;**
- 2. allow the changes to address the so-called 'own credit' issue that were already included in IFRS 9 *Financial Instruments* to be applied in isolation without the need to change any other accounting for financial instruments; and**
- 3. remove the 1 January 2015 mandatory effective date of IFRS 9, to provide sufficient time for preparers of financial statements to make the transition to the new requirements.**

#### **Hedge accounting**

**The IASB has today introduced a new hedge accounting model, together with corresponding disclosures about risk management activity for those applying hedge accounting.**

The changes to hedge accounting and the associated disclosures were developed in response to concerns raised by preparers of financial statements **about the difficulty of appropriately reflecting their risk management activities in the financial statements.**

**The changes also address concerns raised by users of the financial statements about the difficulty of understanding hedge accounting.**

The new model represents a substantial overhaul of hedge accounting that will enable entities to better reflect their risk management activities in their financial statements.

The most significant improvements apply to those that hedge non-financial risk, and so these improvements are expected to be of particular interest to non-financial institutions.

As a result of these changes, **users of the financial statements will be provided with better information about risk management** and about the **effect of hedge accounting on the financial statements.**

#### **Own credit**

As part of the amendments, **the changes introduced also enable entities to change the accounting for liabilities that they**

A potential new standard also could supersede the requirements in AU sec. 332 related to auditing the valuation of derivatives and securities. AU sec. 332 includes guidance and requirements related to auditing assertions, other than valuation with respect to derivatives and securities, that in many cases are duplicative of the requirements in the risk assessment standards. The staff is interested in commenters' views on (i) whether to supersede AU sec. 332 in its entirety, (ii) whether elements of AU sec. 332 should be retained, and (iii) whether enhancements could be made to this standard that could result in improved audit quality.

The staff is requesting views and relevant data on the following:

Questions:

4. Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included within a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?
5. Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition, that the staff should specifically take into account in developing a potential new standard?
6. Are there other considerations relating to the alternatives explored, including other alternatives not discussed in this paper, that the staff should consider in connection with this project?
7. Based on commenters' experience in applying ISA 540 (or AU-C 540), are there any aspects, positive or negative, of a single-standard approach that the staff should consider in connection within a potential new standard? Are there any other lessons learned from the implementation of ISA 540 (or AU-C 540) that the staff should consider in its approach to standard setting in this area?
8. If AU sec. 332 were to be superseded, are there elements that should be retained? With respect to derivatives and securities, are there enhancements related to auditing assertions other than valuation that the staff should consider?

**have elected to measure at fair value**, before applying any of the other requirements in IFRS 9.

This change in accounting would mean that:

1. gains caused by a **worsening in an entity's own credit risk on such liabilities**
2. are no longer recognised in profit or loss.

Please ignore our Editorial outburst Respectfully yours, Pw Carey.....**SO WHERE ARE THEY RECOGNIZED...DUMMY?**

Today's amendments will facilitate earlier yours, application of this long-awaited improvement to financial reporting.

9. Are there considerations relevant to auditing accounting estimates and fair value measurements including other regulatory requirements<sup>37</sup> specific to certain industries that the staff should take into account?

## Key Aspects of a Potential New Standard and Related Potential Requirements

This section discusses possible options for a potential new standard on auditing accounting estimates and fair value measurements (generally referred to as "accounting estimates" in this section) as well as related potential requirements under consideration. Similar to the existing standards, the objective of the auditor under a potential new standard would be to obtain sufficient appropriate audit evidence to determine whether accounting estimates are reasonable and in conformity with the applicable financial reporting framework. Although the staff continues to explore potential alternatives, this discussion focuses and seeks input on the approach of auditing accounting estimates through a single standard.

In summary, under the approach being considered by the staff:

- The auditor would continue to perform procedures in accordance with Auditing Standard No. 12 to identify and assess risks of material misstatement related to accounting estimates, and continue to perform procedures in accordance with Auditing Standard No. 13, *The Auditor's Responses to the Risks of Material Misstatement*, to design and implement an audit response to the identified and assessed risks. These include substantive procedures and, as appropriate, tests of controls.
  - Targeted amendments could be proposed to Auditing Standards Nos. 12 and 13 to specifically address accounting estimates and the related disclosures in certain areas.
- A potential new standard on accounting estimates would generally not duplicate or restate risk assessment requirements relating to the auditor's identification and assessment of risks of material misstatement in these areas. The potential new standard could establish specific requirements for performing substantive audit procedures for the auditor's response to identified and assessed risks of material misstatement related to accounting estimates.

<sup>37</sup> See, e.g., U.S. Securities and Exchange Commission ("SEC"), *Codification of Financial Reporting Policies Section 404.03, Accounting, Valuation and Disclosure of Investment Securities*, Accounting Series Release No. 118 (December 23, 1970).

Page: 19

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 11:22:41 AM

---

**Mandatory Auditor Obligation: Unless the Auditor can fully understand the near-term, mid-term and long-term risks linked directly to the financial products being used by the Management Team (at the C-Suite Level) to ameliorate the negative impacts on the operation and survivability of the business of too much debt and/or too little debt (aka: a take over target).....they can not attest to the material effective outcome of their chosen strategy at that point in time....; Pw**

- The specific requirements included in the potential new standard could generally retain the approaches for substantive audit procedures included in AU sec. 328 and AU sec. 342, but refine the requirements under each approach so that they are applicable to both accounting estimates and fair value measurements. For example:

- Testing the company's process could include:



- Evaluating specific considerations regarding whether the company's method used to develop accounting estimates is appropriate;
- Audit procedures for testing data, including accuracy and completeness of the data, internal consistency of the data, and relevance to the measurement objective for the accounting estimate;
- Factors to assist the auditor in identifying significant assumptions;
- Factors that the auditor evaluates in determining the reasonableness of significant assumptions and
- Auditor considerations when management uses a specialist.

- Developing an independent accounting estimate ~~2~~<sup>could</sup> include:




- Audit procedures tailored to whether the data and assumptions used in the independent accounting estimate were produced by the company, determined by the auditor, or obtained from a third party; and
- Audit procedures specific to evaluating evidence obtained from third-party sources related to fair values of financial instruments.

## Page: 20

 Number: 1 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 11:28:51 AM

**Industry Peer Evaluation across the mean, median and mode of the Industry....will identify an Out Lier compared against their Industry.....Plus: Corporate Culture Assessment, using th e also familiar, often used yet never cited; '...Is there a strong oder coming from the Head of The Fish Algorithm....'**

**Respectfully yours, Pw**

 Number: 2 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Cross-Out Date: 11/3/2014 11:29:24 AM

 Number: 3 Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 11:33:34 AM

**Will automatically generate triggers, red flags, fireworks and balloons tied into various exotic animal shapes, by a scary giant Clown.....Pw**



- Evaluating audit evidence from subsequent events could include:
  - Factors for the auditor to take into account in evaluating the relevance of audit evidence from subsequent events or transactions.

#### **A. Alignment with the Risk Assessment Standards**

The staff is considering an approach to integrate a potential new standard with the risk assessment standards. The risk assessment standards set forth the foundational requirements for identifying, assessing, and responding to risk in an audit, and for evaluating the results of the audit. As a result, the staff believes it is important to consider the interaction of the risk assessment standards with any new auditing standards, especially standards that establish audit performance requirements. While the risk assessment standards apply broadly to identifying, assessing, and responding to risk in an audit, they also include requirements that are specific to accounting estimates.<sup>38</sup> In addition to the risk assessment standards, the existing standards also contain certain requirements that include elements of assessing the risks of material misstatement and that are specifically relevant to accounting estimates.<sup>39</sup>



As discussed earlier, under existing requirements, the auditor performs risk assessment procedures in accordance with Auditing Standard No. 12 to identify and assess risks of material misstatement related to accounting estimates and in accordance with Auditing Standard No. 13 to design and implement an audit response to the identified and assessed risks, including substantive procedures and, as appropriate, tests of controls. Under the approach being considered by the staff, a potential new standard could establish specific requirements for performing substantive audit procedures in response to identified and assessed risks of material misstatement related to accounting estimates, and generally would not duplicate or restate requirements relating to identifying and assessing those risks presented in Auditing Standard No. 12.


Additionally, the staff is exploring certain targeted amendments to the risk assessment standards that specifically address matters relating to accounting estimates. The potential amendments and the staff's possible approach for integrating a potential new standard with the risk assessment standards are discussed below.

<sup>38</sup> See, e.g., paragraph 27 of Auditing Standard No. 14.

<sup>39</sup> See, e.g., AU sec. 328.09.

Page: 21

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 11:46:43 AM

---

**Please Refer to Attached Risk Assessment as one example of a Risk Assessment Strategy.....Pw**

## **1. *Identifying and Assessing Risks of Material Misstatement***

Auditing Standard No. 12 establishes requirements regarding the process of identifying and assessing risks of material misstatement.<sup>40</sup> This process involves obtaining an understanding of the company and its environment,<sup>41</sup> including among other things, the company's selection and application of accounting principles, and related disclosures.<sup>42</sup> Auditing Standard No. 12 further states that the accounts or disclosures for which judgment is used in the application of significant accounting principles, especially in determining management's estimates and assumptions, are relevant to the understanding of the company's selection and application of accounting principles.<sup>43</sup>

The risk assessment process under Auditing Standard No. 12 also involves obtaining an understanding of internal control over financial reporting.<sup>44</sup> This includes obtaining an understanding of the company's risk assessment process, information system relevant to financial reporting, and control activities. These requirements inform the auditor's understanding of how the company develops accounting estimates including related internal controls.

Further, Auditing Standard No. 12 requires the auditor to identify the significant accounts and disclosures and their relevant assertions based on their qualitative and quantitative risk factors such as the nature of the account or disclosure and the accounting and reporting complexities associated with the account or disclosure.<sup>45</sup> Accordingly, with respect to accounting estimates, it is important for the auditor to evaluate the nature of the asset or liability being valued and the measurement objective of the accounting estimate in determining whether the related account or disclosure is significant. The auditor also should determine the likely sources of potential misstatements related to accounting estimates. This includes determining whether the

---

<sup>40</sup> See paragraph 1 of Auditing Standard No. 12.

<sup>41</sup> See *generally* paragraphs 7 through 17 of Auditing Standard No. 12.

<sup>42</sup> See paragraph 7.c. of Auditing Standard No. 12.

<sup>43</sup> See paragraph 13 of Auditing Standard No. 12.

<sup>44</sup> See *generally* paragraphs 18 through 40 of Auditing Standard No. 12.

<sup>45</sup> See paragraph 60 of Auditing Standard No. 12.

components of accounting estimates and the related disclosures are subject to significantly differing risks.<sup>46</sup>

Lastly, under Auditing Standard No. 12, the auditor should determine whether any of the identified and assessed risks are significant risks; this includes identified and assessed risks related to accounting estimates.<sup>47</sup>

As the requirements in Auditing Standard No. 12 already apply to accounts and disclosures involving accounting estimates, additional audit requirements to identify and assess risks of material misstatement may not be necessary in a potential new standard. However, the staff is exploring whether certain targeted amendments to Auditing Standard No. 12, as further discussed, could enhance the existing requirements for identifying and assessing risk as they relate to accounting estimates.

#### Questions:

10. Should the requirements for identifying and assessing risks of material misstatement with respect to accounting estimates and fair value measurements – including risk assessment procedures – be included in Auditing Standard No. 12 or be separately set forth in a potential new standard on auditing accounting estimates?
11. Are there additions or revisions to the existing requirements in PCAOB standards for identifying and assessing risks of material misstatement regarding accounting estimates that should be considered?

#### a. Understanding Processes Used to Develop Accounting Estimates



The staff is considering recommending to the Board a potential amendment to Auditing Standard No. 12 to emphasize that the auditor, as part of understanding internal control over financial reporting, should understand the company's methods, data, assumptions, and use of third parties in developing accounting estimates. Auditing Standard No. 12 already requires that the auditor obtain an understanding of the company's information system relevant to financial reporting, including the classes of transactions in the company's operations that are significant to the financial statements, and the procedures by which those transactions are initiated, authorized, processed, recorded, and reported.<sup>48</sup> AU sec. 328 also requires that the auditor obtain an


<sup>46</sup> See *generally* paragraph 63 of Auditing Standard No. 12.

<sup>47</sup> See *generally* paragraphs 70 and 71 of Auditing Standard No. 12.

<sup>48</sup> See *generally* paragraph 28 of Auditing Standard No. 12.

Page: 23

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 11:49:39 AM

---

**Please Review the Attached Risk Assessment (14 pg.) Strategy as one example....Respectfully yours, Pw**

understanding of the company's process for determining fair value measurements and disclosures, and of the relevant controls.<sup>49</sup>

A potential amendment to Auditing Standard No. 12 could state that, as part of obtaining an understanding of the company's information system relevant to financial reporting, the auditor should obtain an understanding of how a company develops its accounting estimates, specifically:

The processes used to develop accounting estimates, including:

- a. The methods, which may include models;
- b. The data and assumptions; and
- c. The extent to which the company uses a third party or information provided by a third party in developing the accounting estimates.

Questions:

- 12. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other matters relevant to understanding the process used to develop accounting estimates or fair value measurements that could be included in Auditing Standard No. 12?
- 13. In circumstances where the company uses information obtained from a third party, are there matters— such as information systems at third parties, controls that management has over the work of third parties, and controls at third parties— not currently addressed in AU sec. 324, *Service Organizations*, or other standards that the staff should consider?

b. Identifying Significant Accounts and Disclosures and Significant Risks

As discussed earlier, Auditing Standard No. 12 already requires that the auditor identify significant accounts and disclosures.<sup>50</sup> In the staff's preliminary view, additional requirements involving the identification of significant accounts and disclosures specific

<sup>49</sup> See AU sec. 328.09.

<sup>50</sup> See paragraph 59.e. of Auditing Standard No. 12.

to accounting estimates may not be necessary. However, the staff is considering recommending to the Board a potential amendment to Auditing Standard No. 12 to require that the auditor evaluate certain additional factors relevant to accounting estimates in determining which risks are significant risks.

Currently, Auditing Standard No. 12 sets forth certain factors used to evaluate which risks are significant risks. These factors include the degree of complexity or judgment in the recognition or measurement of financial information related to the risk, especially if the measurements involve a wide range of measurement uncertainty.<sup>51</sup> Subjective assumptions and complex calculations or models used to determine accounting estimates often can result in a wide range of measurement uncertainty. In the staff's view, certain environmental factors, such as changes in market liquidity, may affect the extent of unobservable inputs that are used to determine fair value measurements. The greater use of these unobservable inputs in turn may result in a wider range of measurement uncertainty.

As such, the staff is considering whether Auditing Standard No. 12 should be amended to add factors that an auditor should evaluate in determining which risks are significant risks. Specifically, the staff is considering recommending to the Board a potential amendment to paragraph 71 of Auditing Standard No. 12 that would require the auditor to take into account particular factors that could be relevant to assessing the degree of complexity or judgment in the recognition or measurement of an accounting estimate. For example:

In evaluating the degree of complexity or judgment in the recognition or measurement of an accounting estimate, especially those measurements involving a wide range of measurement uncertainty, the auditor should take into account:

- a. The extent of unobservable inputs used;
- b. The type of models or calculations used, if applicable;
- c. The degree of subjectivity associated with a future occurrence or outcome of events underlying the assumptions used such as estimates of future cash flows or prepayment assumptions; and
- d. The extent of market liquidity or activity for the asset or liability, if relevant to the measurement objective.

<sup>51</sup> See paragraph 71.f. of Auditing Standard No. 12.

Questions:

14. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other factors that would be relevant in the auditor's evaluation of the degree of complexity of judgment in the recognition or measurement of an accounting estimate or fair value measurement (e.g., the use of a third party for the determination of a price)?
15. Are there additional factors specific to accounting estimates or fair value measurements that would be useful in identifying significant accounts and disclosures, or in determining significant risks that should be considered?
16. Are there certain types of accounting estimates or fair value measurements that should be presumed to be significant risks?

## **2. *Responding to the Risks of Material Misstatement***

Once the auditor has identified and assessed the risks of material misstatement pursuant to Auditing Standard No. 12, the auditor must design and implement an audit response to those risks pursuant to Auditing Standard No. 13.<sup>52</sup> The auditor's response includes tests of controls and substantive procedures, and requires the auditor to determine the nature, timing, and extent of the audit procedures to be performed. A potential new standard could focus on the nature of substantive procedures to be performed. Such an approach could require the auditor to continue to look to Auditing Standard No. 13 for requirements related to the timing and extent of those procedures.

The following discussion addresses other specific issues relevant to accounting estimates the staff is considering related to the auditor's response to risks.

Question:

17. Are there considerations particular to the timing and extent of these procedures (e.g., interim audit procedures), beyond the requirements of paragraphs 42–46 of Auditing Standard No. 13, that the staff should consider including in a potential new standard?

---

<sup>52</sup> See paragraph 3 of Auditing Standard No. 13.



a. Testing Conformity with the Applicable Financial Reporting Framework

In general, financial reporting frameworks govern the preparation of accounting estimates, and related disclosures. Under Auditing Standard No. 14, the auditor has a responsibility to evaluate whether the financial statements are presented fairly in conformity with the applicable financial reporting framework.<sup>53</sup> Further, AU sec. 328 requires the auditor to evaluate whether the disclosures about fair values made by the company are in conformity with GAAP. The auditor also evaluates whether the company has made adequate disclosures about fair value information.<sup>54</sup>

Given the existing requirement in Auditing Standard No. 14, the staff is not considering including in a potential new standard additional requirements for evaluating whether the company's disclosures are in conformity with the applicable financial reporting framework. However, the staff is exploring a potential amendment to the risk assessment standards to emphasize the auditor's responsibilities related to testing conformity with the applicable financial reporting framework. Specifically, the staff is contemplating whether an amendment to Auditing Standard No. 13 would be useful to underscore the importance of considering the related accounting requirements when auditing significant accounts and disclosures.

For example, paragraph 36 of Auditing Standard No. 13 could be amended by adding the following statement:

Performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.

Questions:

18. Is the potential amendment to Auditing Standard No. 13 described above helpful in emphasizing the auditor's consideration of the applicable accounting framework when auditing significant accounts and disclosures?

<sup>53</sup> See paragraph 30 of Auditing Standard No. 14.

<sup>54</sup> See *generally* AU secs. 328.43–.45.

19. Should a potential new standard include specific audit procedures related to auditing disclosures of accounting estimates (e.g., disclosures on levels within the fair value hierarchy<sup>55</sup>)?

b. Tests of Controls

As discussed previously, a possible approach for a potential new standard would be to focus on substantive procedures. Auditing Standard No. 12 requires the auditor to obtain an understanding of each of the five components of internal control sufficient to plan the audit.<sup>56</sup> The existing requirements in Auditing Standard No. 13 (and Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated With An Audit of Financial Statements*, as applicable) require the auditor to obtain evidence that the controls selected for testing were designed and operated effectively during the entire period of reliance.<sup>57</sup> While the requirements in existing PCAOB standards address tests of controls and can be readily applied to tests of controls over accounting estimates, the staff is considering whether additional requirements related to accounting estimates are necessary.

Question:

20. Given the existing requirements related to testing controls in Auditing Standard No. 13 (and Auditing Standard No. 5, as applicable), would specific requirements on testing internal controls over accounting estimates be useful (e.g., evaluation of design and operating effectiveness of key review controls over accounting estimates)?

c. Procedures Relating to Significant Risks

For significant risks, Auditing Standard No. 13 already requires the auditor to perform substantive procedures, including tests of details that are specifically responsive to the assessed risks.<sup>58</sup> The staff is considering whether a potential new standard should include additional audit procedures if the auditor concludes that an identified and assessed risk related to accounting estimates or fair value measurements is a significant risk.

---

<sup>55</sup> See FASB ASC, subparagraph 820-10-50-2b.

<sup>56</sup> See *generally* paragraph 18 of Auditing Standard No. 12.

<sup>57</sup> See paragraph 16 of Auditing Standard No. 13.

<sup>58</sup> See paragraph 11 of Auditing Standard No. 13.

The staff has considered the approach in ISA 540, which generally requires, for accounting estimates that give rise to significant risks, the auditor to evaluate: (i) reasonableness of management's significant assumptions; (ii) consideration by management of alternative assumptions or outcomes; and (iii) other steps taken by management to address estimation uncertainty in making the accounting estimate.<sup>59</sup> ISA 540 also requires the auditor to obtain sufficient appropriate audit evidence about whether management's decision to recognize the accounting estimates in the financial statements, and the selected measurement basis for the accounting estimates, are in accordance with the requirements of the applicable financial reporting framework.<sup>60</sup>

The staff believes that the procedures in the preceding paragraph are inherent in the requirements of Auditing Standard No. 13 and the other requirements discussed in this paper. Nonetheless, the staff is sensitive to concerns that auditors might need additional direction in the standard to adequately address measurement uncertainty associated with significant risks in accounting estimates. Thus, the staff seeks input on whether additional specificity is needed regarding the nature of potential audit procedures to respond to significant risks in accounting estimates.



Question:

21. Should a potential new standard include specific audit procedures that would be applicable when the auditor identifies and assesses a risk related to accounting estimates as a significant risk? If so, are there factors regarding measurement uncertainty or any other characteristics relevant to staff considerations of potential audit requirements?

## **B. Substantive Procedures for Testing Accounting Estimates**

The staff is exploring the nature of substantive procedures for testing accounting estimates that might be included in a potential new standard. Under existing audit requirements, the auditor performs substantive audit procedures in a manner that addresses the assessed risks of material misstatement for each relevant assertion of each significant account and disclosure.<sup>61</sup> This would include performing substantive audit procedures relating to accounting estimates in significant accounts and disclosures.

---


<sup>59</sup> See *generally* paragraph 15 of ISA 540.

<sup>60</sup> See paragraph 17 of ISA 540.

<sup>61</sup> See *generally* paragraph 8 of Auditing Standard No. 13.

Page: 29

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 11:50:58 AM

---

**Yes, and include a few Use Cases to help them along with understanding what they should be looking for.....Pw**

As previously discussed, the existing standards require that the auditor use one or a combination of the following approaches to test accounting estimates: (i) test the company's process; (ii) develop an independent estimate; and (iii) review subsequent events and transactions. The staff is considering retaining these approaches, with possible refinements to the existing requirements. The staff is also exploring whether to provide direction on the selection of the appropriate testing approach. While the nature of the accounting estimate informs the auditor's selection of a testing approach, certain other factors may also affect this determination. For example, it is possible that the availability of audit evidence, the results of the auditor's tests of controls and the auditor's retrospective review required by paragraph 64 of AU sec. 316, *Consideration of Fraud in a Financial Statement Audit*, also could inform the auditor's selection of testing approaches.

The staff is considering including in the potential new standard factors the auditor should take into account when selecting testing approaches.

Questions:

22. Are there specific factors that affect the auditor's selection of approaches related to testing accounting estimates? What considerations would be appropriate for the auditor to take into account when determining which approach (or combination of approaches) for testing accounting estimates should be selected?
23. Aside from testing management's process, developing an independent estimate, or reviewing subsequent events and transactions as further discussed, should a potential new standard allow for or require other approaches to testing accounting estimates? If so, what other approaches would be appropriate?
24. Are there certain types of accounting estimates for which substantive procedures other than those described in this paper would provide better audit evidence?

**1. Testing the Company's Process**

As noted above, the staff is considering whether a potential new standard should retain the ability for the auditor to test the company's process used to develop an accounting estimate. A company's process for developing accounting estimates generally consists of a particular method used to develop the estimate and the relevant data and assumptions applied to the method. The method used to develop an accounting estimate depends on the measurement objective of the estimate and, in some instances, the requirements of the applicable financial reporting framework. In

some cases, observable market data may exist and be used by management in developing accounting estimates. In other cases, the accounting estimate is determined primarily using unobservable data.

A potential new standard could build on the requirements in the existing standards for testing the company's process including: (i) evaluating the appropriateness of the company's methods; (ii) testing the data used; and (iii) evaluating the reasonableness of significant assumptions. The staff is exploring possible enhancements to the requirements for testing the company's process, as discussed below. Further, the staff is exploring whether the existing requirements for testing the data used in paragraph 39 of AU sec. 328, could be included in a potential new standard or if those requirements should be enhanced.

Question:

25. Are there enhancements to the existing requirements for testing data used by management to develop the accounting estimate the staff should consider?

a. Evaluating the Company's Method Used to Develop an Accounting Estimate

The staff is considering what requirements a potential new standard could include relating to evaluating the company's method used to develop accounting estimates. The existing standards generally require that the auditor evaluate the appropriateness of the method used by the company to develop an accounting estimate. For example, AU sec. 328 requires that the auditor evaluate whether the company's method of measurement is appropriate in the circumstances when management uses a valuation method.<sup>62</sup> This evaluation includes, among other things, obtaining an understanding of management's rationale for selecting the valuation method, and considering certain factors related to the valuation method, such as the appropriateness in relation to the item being valued and the company's business, industry, and environment.<sup>63</sup>

A potential new standard could carry forward the concepts in the existing standards by requiring the auditor to evaluate whether the company's methods used to develop accounting estimates are appropriate. Further, as discussed below, the potential new standard could specify certain factors the auditor should evaluate as part of determining the appropriateness of the company's methods.

---

<sup>62</sup> See AU sec. 328.18.

<sup>63</sup> *Id.*

For example, similar to the existing standards, a potential new standard could require that the auditor, in evaluating whether the company's methods used to develop the accounting estimates are appropriate, evaluate whether the company's methods are in conformity with the applicable financial reporting framework. For certain accounting estimates, the financial reporting framework may suggest a specific method to be used in determining the accounting estimate. For example, in determining the value of certain share-based payment arrangements, the valuation technique utilized should meet the criteria outlined in the financial reporting framework -- such as use of a lattice or closed-form model.<sup>64</sup> In other instances, the financial reporting framework does not prescribe a specific method and may allow for a more principles-based approach to developing the accounting estimate or fair value measurement.

Consistent with the existing standards, a potential new standard also could require that the auditor evaluate whether the company's methods are accepted within the company's industry.<sup>65</sup> In cases where the financial reporting framework allows for judgment in the selection of the method for determining an accounting estimate, the auditor's evaluation could include whether the company's industry follows a particular method of measurement to develop the estimate. In those circumstances, the use of an alternate method by the company might pose additional risks that require audit attention similar to the requirements for evaluating the company's selection and application of accounting principles in Auditing Standard No. 12.

Similar to existing requirements, a potential new standard also could state that evaluating the appropriateness of the company's methods includes evaluating whether the methods used to develop accounting estimates are applied consistently.<sup>66</sup> The evaluation could take into account whether the consistency is appropriate, considering changes in the environment or circumstances affecting the company.<sup>67</sup>

The staff is aware that situations may arise where circumstances affecting the company would necessitate a change in the method used to develop an accounting

---

<sup>64</sup> See FASB ASC, Topic 718, Compensation—Stock Compensation, paragraph 10-55-16.

<sup>65</sup> See AU sec. 328.18.

<sup>66</sup> See AU sec. 328.19.

<sup>67</sup> *Id.*



estimate.<sup>68</sup> The staff also recognizes that, for some accounting estimates, more than one method to develop the estimate is permitted under the applicable financial reporting framework. To address those circumstances, a potential new standard could require the auditor to determine the reasons for the method selected by the company and to evaluate the appropriateness of the selection and the reasons for the change.

Further, in situations where a company uses more than one method in developing an accounting estimate, and the company has determined that different methods result in significantly different estimates, a potential new standard also could require the auditor to determine the reason for the method selected by the company and evaluate the appropriateness of the selection.

For example, a potential new standard could include the following requirements relating to the auditor's evaluation of the appropriateness of the company's methods used to develop an accounting estimate:

The auditor should evaluate whether the company's methods used to develop the accounting estimates are appropriate. In evaluating the appropriateness of the methods, the auditor should evaluate whether the methods are in conformity with the applicable financial reporting framework.

The auditor also should evaluate whether the methods are:

- a. Accepted within the company's industry; and
- b. Applied consistently, including whether consistency is appropriate considering changes in the environment or circumstances affecting the company.

If the company has changed the method for determining the accounting estimate, the auditor should determine the reasons for and evaluate the appropriateness of such changes.

In circumstances where the company has determined that different methods result in significantly different estimates, the auditor should determine the reasons for the method selected by the company and evaluate the appropriateness of the selection.

---

<sup>68</sup> Under these circumstances, the auditor should evaluate and report on a change in accounting estimate effected by a change in accounting principle in accordance with Auditing Standard No. 6, *Evaluating Consistency of Financial Statements*.



Questions:

26. Are the potential requirements described above for evaluating whether the company's method used to develop accounting estimates appropriate for both accounting estimates and fair value measurements?
27. In circumstances where the financial reporting framework does not specify the use of a particular valuation method, is the consideration of methods accepted by the company's industry relevant? Are there other criteria that auditors could use to evaluate the appropriateness of the company's method used to develop accounting estimates?

b. Evaluating the Reasonableness of Significant Assumptions

The staff is exploring potential enhancements to the requirements for identifying and evaluating the reasonableness of the significant assumptions underlying the company's accounting estimates. The audit procedures in the existing standards set forth requirements for identifying significant assumptions and testing those assumptions for reasonableness.<sup>69</sup> The staff envisions that similar requirements could be included in a potential new standard but with certain refinements. For example, for the purpose of evaluating reasonableness of the assumptions used by the company in developing an accounting estimate, the potential new standard could require the auditor to identify the assumptions used by management that are significant to the accounting estimate, that is, the assumptions that are important to the recognition or measurement of the accounting estimate in the financial statements. Similar to the existing standards, the auditor's evaluation of reasonableness could include, among other things, evaluating the significant assumptions for consistency with certain factors. A potential new standard could also take into account information the auditor obtained in performing procedures required by the risk assessment standards, such as information on the company's objectives and strategies and relevant industry factors.<sup>70</sup>

i. *Identifying Significant Assumptions*

The existing standards require the auditor to devote attention to the significant assumptions that management has identified.<sup>71</sup> A potential new standard could build on the existing requirement by also requiring the auditor to evaluate whether management

---

<sup>69</sup> See generally AU secs. 328.26–.36 and AU sec. 342.11.

<sup>70</sup> See generally paragraph 7 of Auditing Standard No. 12.

<sup>71</sup> See generally paragraph AU sec. 328.33.

has identified the significant assumptions in the accounting estimate. In the staff's view, in circumstances where the company has a robust process in place for developing accounting estimates, it is likely that management would have, as part of this process, identified the significant assumptions that were used. As such, the auditor would include those assumptions identified by management in the auditor's identification of significant assumptions. The auditor also may identify additional significant assumptions. To address circumstances when management has not identified as significant an assumption that is important to the overall measurement of the accounting estimate, a potential new standard could require the auditor to nevertheless test that significant assumption. The new requirement could help to assure that the significant assumptions are evaluated even if management has not identified or disclosed them to the auditor.

Further, to help the auditor determine whether the significant assumptions have been identified, the potential new standard could provide a description of significant assumptions, along with certain identifying characteristics. In a potential new standard, significant assumptions could include those that are important to the recognition or measurement of the accounting estimate in the financial statements, such as assumptions that:

- a. Cause a significant change in the accounting estimate, based on a minor variation in the assumption;
- b. Are susceptible to manipulation or bias;
- c. Are based on unobservable data;
- d. Are based on observable data adjusted by the company;
- e. Are based on the company's intent and ability to carry out specific courses of action; or
- f. Are otherwise important to the recognition or measurement of the accounting estimate.

Questions:

28. Would a requirement for the auditor to determine which assumptions used by management are significant assumptions present difficulties in practice? Should the staff consider a requirement for the auditor to identify



assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate?

29. Is the potential requirement suggested above clear and appropriate for both accounting estimates and fair value measurements? Are there other specific characteristics of significant assumptions that should be included?

*ii. Evaluating the Reasonableness of Significant Assumptions Identified*

As discussed earlier, the existing standards require the auditor to evaluate significant assumptions for reasonableness. A potential new standard could include a similar requirement. A potential new standard could also emphasize that the auditor, in evaluating the reasonableness of the assumptions, should take into account all relevant and reliable evidence, regardless of whether it appears to corroborate or contradict management's assertions regarding the assumptions. This is consistent with the requirements of Auditing Standard No. 14.

In addition, a potential new standard could include additional factors to take into account in evaluating the reasonableness of assumptions, drawing largely from the corresponding factors in AU sec. 328.<sup>72</sup> The factors could relate to information about the company and its environment obtained while performing procedures required by Auditing Standard No. 12.

The following requirement could be included in a potential new standard relating to the auditor's evaluation of the reasonableness of the identified significant assumptions:

---

<sup>72</sup> See generally AU sec. 328.36.

When evaluating significant assumptions, the auditor should evaluate the consistency of each significant assumption with the following, if applicable:

- a. Relevant industry, regulatory, and other external factors, including economic conditions;
- b. The company's objectives, strategies, and related business risks;
- c. Existing market information;
- d. Historical or recent experience, taking into account changes in conditions and events affecting the company; and
- e. Other interdependent assumptions used by the company.

Question:

- 30. Are the suggested factors described above appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluating the reasonableness of significant assumptions relevant to accounting estimates?

c. Management's Use of a Specialist

The staff is also exploring whether to include in a potential new standard audit procedures to address information developed by a company's specialist related to accounting estimates. Under existing requirements in AU sec. 328, management's assumptions include assumptions developed by management under the guidance of the board of directors and assumptions developed by a specialist engaged or employed by management.<sup>73</sup> The staff understands that a company's process to develop an accounting estimate or fair value measurement often includes using a specialist. A similar requirement to test assumptions could apply to both accounting estimates and fair value measurements.

Therefore, a potential new standard could include the existing requirement related to testing assumptions developed by a company's specialist in AU sec. 328, but apply it more broadly to information provided for accounting estimates. As such, if a company uses a specialist to develop an accounting estimate, a potential new standard

<sup>73</sup> See footnote 2 to AU sec. 328.05.

could direct the auditor to test that information as if it were produced by the company. In this case, the auditor would be required, as applicable, to evaluate the appropriateness of the methods, test the data used, and evaluate the reasonableness of significant assumptions, with respect to the information provided by the specialist. For example, the potential new standard could include the following requirement:

When the company uses a specialist employed or engaged by the company to develop an accounting estimate, the auditor should test the information provided by the specialist as if it were produced by the company.



Question:

31. Is the potential requirement described above appropriate for all types of accounting estimates? Are there other considerations that should be taken into account in applying this requirement to accounting estimates?

## **2. *Developing an Independent Accounting Estimate***

As noted earlier, the staff is considering that a potential new standard would continue to allow auditors to test accounting estimates by developing an independent estimate.


Under existing standards, when developing an independent estimate using management's assumptions, the auditor is required to evaluate those assumptions for reasonableness consistent with the procedures for testing management's process.<sup>74</sup> Instead of using management's assumptions, the auditor may use his or her own assumptions to develop an independent estimate. In that situation, the auditor nevertheless is required to understand management's assumptions. Under AU sec. 328, the auditor uses that understanding to ensure that his or her independent estimate takes into consideration all significant variables and to evaluate any significant difference from management's estimate.<sup>75</sup> The auditor also is required to test the data used to develop the independent estimate. AU sec. 342 takes a similar approach by allowing an auditor to independently develop an expectation as to the estimate by using

<sup>74</sup> See generally AU sec. 328.40.

<sup>75</sup> *Id.*

Page: 38

---

 Number: 1      Author: Pw Carey, Senior IT Auditor (GRC), CISSP, CISA      Subject: Compliance Partners, LLC, Barrington, IL 60010 USA  
Date: 11/3/2014 11:56:42 AM

---

**The over whelming majority of fraud is conducted around Financial Accounting by folks who look like you and me....this does not address Sovereign**

**Fraud, Capital Markets Fraud such a LIBOR et cetera...but it's a good start....looking forward to the 2nd Edition....**

**Please Note: All of our comments are from the point of view of an IT GRC Auditor specializing in Fraud.....Respectfully yours, Pw**

A potential new standard also could emphasize the auditor's responsibility to take into account all information relevant to the accounting estimate. This information could include, for example, consideration of significant variables from management's assumptions in circumstances where the independent accounting estimate is determined by the auditor.

As discussed earlier, AU sec. 328 requires the auditor to test data used to develop the fair value measurement. The staff is exploring how this requirement should apply when the auditors independently derive or obtain data from other sources. The staff recognizes that, in practice, the auditor may obtain data and assumptions from other sources other than the company. For example, the auditor could obtain mortality rates from a third party for the purposes of testing the company's pension liability. Based on its outreach, the staff understands that there may be limitations in testing data obtained from certain third-party sources for completeness and accuracy.

One approach may be that a potential new standard could nonetheless require that the auditor determine whether data is appropriate, which includes testing reliability and relevance to comply with paragraph 6 of Auditing Standard No. 15. In summary, the procedures to be applied when the auditor develops an independent accounting estimate could be tailored to the source of the data and assumptions used in the independent accounting estimate. For example, requirements in a potential new standard could include the following:

**Data and Assumptions Produced by the Company and Used by the Auditor in Developing an Independent Estimate**

- When developing an independent estimate using data and assumptions produced by the company, the auditor should test the accuracy and completeness of the data, evaluate the internal consistency of the data, and evaluate whether the data is relevant to the measurement objective for the accounting estimate.
- The auditor should also evaluate the reasonableness of the significant assumptions, which includes identifying the assumptions that are important to the recognition or measurement of the accounting estimate in the financial statements.

**Data and Assumptions Obtained by the Auditor from Third Parties and Used in Developing an Independent Estimate**

- When the auditor obtains data and significant assumptions from a third party, the



auditor should evaluate the relevance and reliability of the data and assumptions in accordance with the requirements of Auditing Standard No. 15, *Audit Evidence*.

Questions:

32. Are the potential requirements described above for developing an independent estimate, including the potential requirements regarding testing data and assumptions, clear and appropriate for both accounting estimates and fair value measurements? Would these requirements present challenges for certain types of accounting estimates and fair value measurements?
33. Are there additional considerations that should be addressed with respect to information obtained by the auditor from a third-party source?
34. Are there factors that the staff should consider when developing potential audit requirements for testing the reliability and relevance of data independently derived by the auditor or obtained from other sources?

a. Developing an Independent Accounting Estimate as a Range

Auditing Standard No. 14 provides for developing a range of possible estimates for purposes of evaluating misstatements relating to accounting estimates. In addition, AU sec. 342.12 states that the auditor may independently develop an expectation of an estimate by using other key factors or alternative assumptions about those factors.

The staff is considering what a potential new standard could include related to developing an independent estimate as a range of estimates. One approach may be for a potential new standard to emphasize that the estimate is limited to outcomes within the range that are supported by sufficient appropriate audit evidence.

Question:

35. Are there other matters relevant to developing a range that a potential new standard could address (e.g., requiring a sensitivity analysis)?

**3. Evaluating Audit Evidence from Subsequent Events**

As previously discussed, the staff is contemplating that a potential new standard would continue to allow auditors to test accounting estimates by reviewing subsequent events and transactions. The existing requirements recognize that events and



transactions that occur after the balance-sheet date but before the date of the auditor's report may provide audit evidence regarding management's accounting estimates and fair value measurements as of the balance-sheet date.<sup>78</sup> Additionally, the existing standards recognize that such information may be important in identifying and evaluating the reasonableness of accounting estimates or assumptions used in the preparation of an accounting estimate.<sup>79</sup>

Existing PCAOB standards also provide that some subsequent events or transactions may reflect changes in circumstances occurring after the balance-sheet date and thus do not constitute appropriate evidence of the fair value measurement at the balance-sheet date (for example, the prices of actively traded marketable securities that change after the balance-sheet date).<sup>80</sup> A potential new standard also could include a similar procedure that makes allowance for these considerations. A potential new standard might also include factors for the auditor to take into account when evaluating the relevance of the audit evidence from the subsequent events or transactions.

For example, requirements in a potential new standard addressing the use of subsequent events could include the following:

When the auditor obtains audit evidence from events or transactions that occur subsequent to the measurement date, the auditor should determine that the audit evidence is reliable and relevant to the recorded accounting estimate.

- In evaluating the relevance of the audit evidence from the event or transaction to the accounting estimate, the auditor should take into account:
  - The period between the event or transaction date and the measurement date;
  - The comparability of the event or transaction involved to the company's accounting estimate, as appropriate; and
  - Changes in the company's circumstances or the general economic conditions between the event or transaction date and the measurement date.

<sup>78</sup> See generally AU sec. 328.41 and AU sec. 342.13.

<sup>79</sup> See generally AU sec. 342.13.

<sup>80</sup> See AU sec. 328.42.

Questions:

36. Are the potential requirements described above for evaluating audit evidence from events or transactions that occur subsequent to the measurement date through the date of the auditor's report, appropriate for both accounting estimates and fair value measurements?
37. Are there additional factors that should be taken into consideration when evaluating the relevance of the audit evidence obtained from events or transactions that occur subsequent to the measurement date through the date of the auditor's report?

**C. Use of Third Parties**

As previously discussed, the staff is exploring ways a potential new standard could address the varying circumstances when auditors obtain information from third parties, including specialists engaged by the auditor. Based on its outreach, the staff understands that auditors often engage a specialist or use specialists on staff for the purpose of developing an independent estimate. One approach would be for the auditor to continue to look to the requirements of existing PCAOB standards (e.g., AU sec. 336, *Using the Work of a Specialist*), as applicable. However, an auditor may obtain information from third-party sources that provide the same information to the public. For example, pricing services often provide uniform price information and other data about financial instruments to the public for a fee. In that case, the auditor does not engage the third party specifically to develop an estimate; rather, the auditor obtains information that is developed for, and widely available to, the public. In other cases, the auditor obtains a specific estimate directly from a third-party source that is generated specifically for the auditor. The staff is considering developing an approach in the potential new standard that could potentially recognize some of these differences.

In other instances, third parties, for example pricing services, may be used by both the company and the auditor to provide values of financial instruments. In other instances, a company might use values of financial instruments provided by a third party, for example a custodian, who obtains the values from the same pricing service used by the auditor. These instances may raise questions about whether the auditor could arrive at an independent estimate.

The staff is considering including a requirement that would apply when the auditor and the company use the same third-party source to arrive at an accounting estimate. For example:

If the third-party source used by the auditor is the same as the third-party source used by the company, the auditor should evaluate the audit evidence obtained as if it were produced by the company, which includes testing data and evaluating reasonableness of significant assumptions.

Questions:

38. Would the potential requirements described above address procedures performed by audit firms that use a centralized testing approach? Would these requirements create issues in practice for smaller firms?
39. Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?

**1. *Evaluating Audit Evidence from Third-Party Sources***

As part of its overall outreach to date, the staff sought input on auditors' use of third-party sources in obtaining fair value measurements of financial instruments. The discussions with the Task Force members brought to light the various methodologies used by third-party pricing sources to value these instruments and the measurement uncertainty inherent in those valuations. The existing standards address the auditor's consideration of data and assumptions in the determination of fair value measurements.

The staff understands that, in many cases, financial instruments are valued using methodologies that incorporate a mix of inputs. Further, available observable inputs may be adjusted for other market factors in the ultimate determination of the price. The existing standards do not specifically address the use of alternate valuation methodologies employed by many pricing sources. The staff also understands that pricing sources are increasingly providing products that could provide auditors with insight as to how their prices or estimates are developed.

The staff is considering how a potential new standard could address audit evidence obtained from third-party sources, such as pricing services and broker-dealers. In considering potential requirements related to fair value of financial instruments, the staff recognizes the nature of evidence obtained from third-party sources varies based on the type of instrument being valued and the source of information used by pricing services. Some pricing services provide consensus prices; that is, a value derived from prices provided by each subscriber to the services. Other pricing services use their own methodology based on various market data obtained or

derived from other sources, including trades of comparable instruments, broker quotes, and historical trade activity to determine a value. Pricing services also may combine multiple approaches to arrive at a value for a particular instrument.<sup>81</sup>

Furthermore, auditors also may obtain a price for a financial instrument directly from a broker-dealer that is based (or not based) on a binding quote. Given the differences in how values of financial instruments are derived and obtained, the staff is exploring whether a new standard should set forth specific requirements for evaluating information from third-party pricing sources as part of evaluating the relevance and reliability of the evidence pursuant to Auditing Standard No. 15.

Under that approach, the auditor would first evaluate the reliability of the evidence provided by the third-party pricing source, taking into account certain factors. For example:

- a. The experience and expertise of the third party relative to the type of asset or liability being valued; and
- b. The methods used by the third party in determining fair value for the specific company's assets or liabilities being tested and whether the methodology used is in conformity with the applicable financial reporting framework.

Under this approach, the auditor would then evaluate the relevance of the evidence obtained from the third-party source. For example:

The auditor should evaluate whether the evidence provided by the third-party source is relevant to the fair value measurement, which includes determining the following:

- a. Whether fair values are based on trades of the same instrument or active

<sup>81</sup> See generally SEC, Money Market Reform; Amendments to Form PF, Investment Company Act Release No. 31166 (July 23, 2014) at 281-82, 79 Federal Register 47736 (August 14, 2014) at 47813 ("In matrix pricing, portfolio asset values are derived from a range of different inputs, with varying weights attached to each input, such as pricing of new issues, yield curve information, spread information, and yields or prices of securities of comparable quality, coupon, maturity, and type. ... [P]rices from third-party pricing services ... may take into account these inputs as well as prices quoted from dealers that make markets in these instruments and financial models.") (footnotes omitted).

market quotations;

- b. When the fair values are based on transactions of comparable assets or liabilities, how those transactions are identified and considered comparable;
- c. When there are no transactions either for the asset or liability or comparable assets or liabilities, how the information was developed including whether the inputs developed represent the assumptions that market participants would use when pricing the asset or liability, if applicable; or
- d. When the fair value measurement is based on a broker quote, whether the broker quote:
  - i. Is from a market maker who transacts in the same type of financial instrument; and
  - ii. Is binding or nonbinding, with more weight placed on quotes based on binding offers.

Questions:

- 40. Would the factors noted above help the auditor in evaluating the reliability and relevance of evidence obtained from third-party pricing sources? Are there other factors that are applicable in determining the reliability or relevance of evidence obtained from third-party pricing sources?
- 41. Are there other approaches to testing evidence obtained from third-party pricing sources that the staff should consider?
- 42. How could a potential new standard differentiate between a third-party pricing source and a specialist?
- 43. Would the potential requirement address the various methods used by third-party pricing sources for determining fair value measurements of financial instruments (e.g., use of consensus pricing and proprietary models)?

## Questions Related to Economic Impacts and Implications

As the staff continues to explore an appropriate standard-setting approach, it is interested in information and views regarding economic implications of the alternatives described above. The staff is seeking data and other information on current practices and potential regulatory alternatives that would help to inform its analysis. This includes information on the likely costs and benefits of a potential new standard and of alternative approaches, such as those discussed in the section titled "Staff Consideration of Alternative Approaches."

The staff welcomes the views of commenters on the general economic implications of alternatives, including a potential new standard discussed in this paper, and on these specific matters:

Questions:

44. What are the likely economic impacts, including benefits and costs, of the potential alternatives discussed in this consultation paper? Are there any unintended consequences that might result from the alternatives?
45. As part of considering the need for change, the staff is reviewing academic literature, including identified papers that synthesize the academic literature.<sup>82</sup> Is there ongoing research or other information that the staff should consider in evaluating the economic aspects of changes in standards for auditing accounting estimates and fair value measurements?

\* \* \*

---

<sup>82</sup> See, e.g., Roger D. Martin, Jay S. Rich, and T. Jeffrey Wilks, *Auditing Fair Value Measurements: A Synthesis of Relevant Research*, 20 *Accounting Horizons*, 287 *passim* (2006); Brant E. Christensen, Steven M. Glover, and David A. Wood, *Extreme Estimation Uncertainty in Fair Value Estimates: Implications for Audit Assurance*, 31 *Auditing: A Journal of Practice & Theory*, 127 *passim* (2012); Timothy B. Bell and Jeremy B. Griffin, *Commentary on Auditing High-Uncertainty Fair Value Estimates*, 31 *Auditing: A Journal of Practice & Theory*, 147 *passim* (2012); and Brian Bratten, Lisa Milici Gaynor, Linda McDaniel, Norma R. Montague, and Gregory E. Sierra, *The Audit of Fair Values and Other Estimates: The Effects of Underlying Environmental, Task, and Auditor-Specific Factors*, 32 *Auditing: A Journal of Practice & Theory*, 7 *passim* (2013).



other key factors or alternative assumptions about those factors based on the auditor's understanding of the facts and circumstances.<sup>76</sup>

Auditors also may use third-party sources in developing independent accounting estimates, for example, information from third-party pricing sources when developing an independent estimate of the fair value of a financial instrument.

A potential new standard could retain the requirements from the existing standards for developing an independent estimate but recognize that auditors develop independent estimates in different ways. For example, a potential new standard could include audit procedures specific to the source (such as the company or a third party) of the data and assumptions. Including audit procedures that are tailored to the source of the data and assumptions may be more reflective of the various ways in which auditors determine independent estimates.

Under this approach, a potential new standard could present separate requirements that depend on the source of the data and assumptions, which may provide greater clarity regarding the procedures to be performed for developing an independent estimate.

A potential new standard could retain the ability for the auditor to develop an independent accounting estimate using his or her own assumptions or those produced by the company. Under this scenario, the potential new standard could generally include the requirements in the existing standards to test the accuracy and completeness of the data, evaluate the internal consistency of the data, and evaluate whether the data is relevant to the measurement objective for the accounting estimate.<sup>77</sup> This approach would retain the existing requirement in AU sec. 328 with regard to testing company-provided data.

If the auditor obtains data and significant assumptions from a third party in developing an independent estimate, the potential new standard could emphasize that, under those circumstances, the auditor evaluates the relevance and reliability of the data and assumptions obtained in accordance with Auditing Standard No. 15, *Audit Evidence*. Additional discussion of this potential requirement is included in the section titled "Evaluating Audit Evidence from Third-Party Sources" of this paper, including discussion of additional factors for evaluating the relevance and reliability that could be included in a potential new standard.

---

<sup>76</sup> See AU sec. 342.12.

<sup>77</sup> See generally AU sec. 328.39.

## Risk Assessments:

- **Tier 1: Organization Level---Tier 2: Business Process Level---Tier 3: Information Systems Level**

Used for systemic information/data security-related risks associated with:

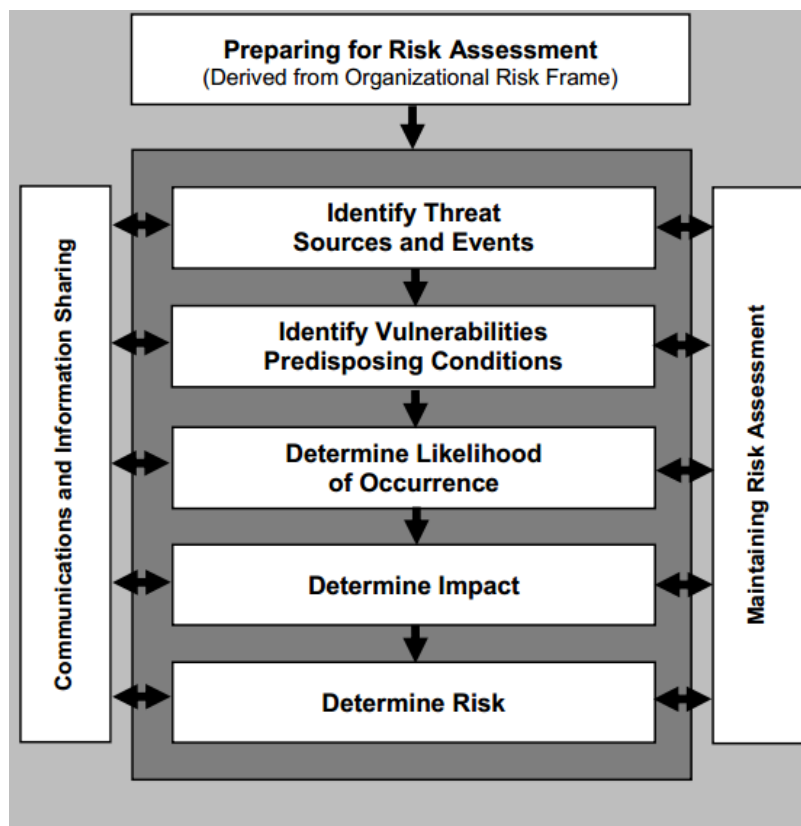
- **Organizational Governance (GRC) Governance, Risk & Compliance**
- **Management Activities**
- **Business Processes**
- **Enterprise Architecture**
- **Funding Information Security Programs**

## Tier 3 Risk Assessments:

- **Security Categorization**
- **Security Control Selection**
- **Security Control Implementation**
- **Security Control Risk assessment**
- **Information System Authorizations, and**
- **Monitoring**

## Information Systems include:

- **People—Processes—Technologies--Facilities, and--Cyberspace**



**FIGURE 5: RISK ASSESSMENT PROCESS**



**Step 1: CATEGORIZE**

- Information System(s)
- Organizational Inputs
- Laws,
- Directives,
- Policy Guidance
- Strategic Goals and Objectives
- Priorities and Resource Availability
- Supply Chain Considerations

**TASK 1-1: CATEGORIZE the information system and document the results of the security categorization in the security plan. (Who owns what and what it does)**

**TASK 1-2: DESCRIBE the information system (including system boundary) and document the description in the security plan.**

**TASK 1-3: REGISTER the information system with appropriate organizational program/management offices.**

The registration process begins by identifying the information system (and subsystems, if appropriate) in the system inventory and establishes a relationship between the information system and the parent or governing organization that owns, manages, and/or controls the system. Information system registration, in accordance with organizational policy, uses information in the system identification section of the security plan to inform the parent or governing organization of:

- the existence of the information system;
- the key characteristics of the system; and
- any security implications for the organization due to the ongoing operation of the system.

Information system registration provides organizations with an effective management/tracking tool that is necessary for security status reporting in accordance with applicable laws, Executive Orders, directives, policies, standards, guidance, or regulations.

**Milestone Checkpoint #1**

- Has the organization completed a security categorization of the information system including the information to be processed, stored, and transmitted by the system?
- Are the results of the security categorization process for the information system consistent with the organization's enterprise architecture and commitment to protecting organizational mission/business processes?
- Do the results of the security categorization process reflect the organization's risk management strategy?
- Has the organization adequately described the characteristics of the information system?
- Has the organization registered the information system for purposes of management, accountability, coordination, and oversight?

**Step 2 SELECT Security Controls**

**TASK 2-1: Identify the security controls that are provided by the organization as common controls for organizational information systems and document the controls in a security plan (or equivalent document).**

**TASK 2-2: Select the security controls for the information system and document the controls in the security plan.**

**TASK 2-3: Develop a strategy for the continuous monitoring of security control effectiveness and any proposed or actual changes to the information system and its environment of operation.**

**TASK 2-4: Review and approve the security plan.**

**Milestone Checkpoint #2**

- Has the organization allocated all security controls to the information system as system-specific, hybrid, or common controls?
- Has the organization used its risk assessment (either formal or informal) to inform and guide the security control selection process?
- Has the organization identified authorizing officials for the information system and all common controls inherited by the system?
- Has the organization tailored and supplemented the baseline security controls to ensure that the controls, if implemented, adequately mitigate risks to organizational operations and assets, individuals, other organizations, and the Nation?
- Has the organization addressed minimum assurance requirements for the security controls employed within and inherited by the information system?
- Has the organization consulted information system owners when identifying common controls to ensure that the security capability provided by the inherited controls is sufficient to deliver adequate protection?
- Has the organization supplemented the common controls with system-specific or hybrid controls when the security control baselines of the common controls are less than those of the information system inheriting the controls?
- Has the organization documented the common controls inherited from external providers?
- Has the organization developed a continuous monitoring strategy for the information system (including monitoring of security control effectiveness for system-specific, hybrid, and common controls) that reflects the organizational risk management strategy and organizational commitment to protecting critical missions and business functions?
- Have appropriate organizational officials approved security plans containing system-specific, hybrid, and common controls?

**Step 3 IMPLEMENT Security Controls**

**TASK 3-1:Implement the security controls specified in the security plan.**

**TASK 3-2:Document the security control implementation, as appropriate, in the security plan, providing a functional description of the control implementation (including planned inputs, expected behavior, and expected outputs).**

**Milestone Checkpoint #3**

- Has the organization allocated security controls as system-specific, hybrid, or common controls consistent with the enterprise architecture and information security architecture?
- Has the organization demonstrated the use of sound information system and security engineering methodologies in integrating information technology products into the information system and in implementing the security controls contained in the security plan?
- Has the organization documented how common controls inherited by organizational information systems have been implemented?
- Has the organization documented how system-specific and hybrid security controls have been implemented within the information system taking into account specific technologies and platform dependencies?
- Has the organization taken into account the minimum assurance requirements when implementing security controls?

## Step 4 ASSESS Security Controls

### **Develop, review, and approve a plan to assess the security controls.**

Organizations consider both the technical expertise and level of independence required in selecting security control assessors. Organizations also ensure that security control assessors possess the required skills and technical expertise to successfully carry out risk assessments of system-specific, hybrid, and common controls. This includes knowledge of and experience with the specific hardware, software, and firmware components employed by the organization.

- **Impartiality implies that assessors are free from any perceived or actual conflicts of interest with respect to the development, operation, and/or management of the information system or the determination of security control effectiveness.**
- **The authorizing official determines if the level of assessor independence is sufficient to provide confidence that the risk assessment results produced are sound and can be used to make a risk-based decision on whether to place the information system into operation or continue its operation.**
- **Security control risk assessments occur as early as practicable in the system development life cycle, preferably during the development phase of the information system. These types of risk assessments are referred to as developmental testing and evaluation and are intended to validate that the required security controls are implemented correctly and consistent with the established information security architecture.**

Developmental testing and evaluation activities include, for example, design and code reviews, application scanning, and regression testing. Security weaknesses and deficiencies identified early in the system development life cycle can be resolved more quickly and in a much more cost-effective manner before proceeding to subsequent phases in the life cycle.

The objective is to identify the information security architecture and security controls up front and to ensure that the system design and testing validate the implementation of these controls.

- **Supporting materials such as procedures, reports, logs, and records showing evidence of security control implementation are identified as well. In order to make the risk management process as timely and cost-effective as possible, the reuse of previous risk assessment results, when reasonable and appropriate, is strongly recommended.**
- **For example, a recent audit of an information system may have produced information about the effectiveness of selected security controls. Another opportunity to reuse previous risk assessment results comes from programs that test and evaluate the security features of commercial information technology products.**

- PCAOB 2019-002 Page Number 0882
- Additionally, if prior risk assessment results from the system developer are available, the security control assessor, under appropriate circumstances, may incorporate those results into the risk assessment . And finally, assessment results are reused to support reciprocity where possible.
  - Organizations may choose to develop an executive summary from the detailed findings that are generated during a security control assessment.
  - An executive summary provides an authorizing official with an abbreviated version of the assessment report focusing on the highlights of the risk assessment , synopsis of key findings, and/or recommendations for addressing weaknesses and deficiencies in the security controls.

**TASK 4-1: Develop, review, and approve a plan to assess the security controls.**

**TASK 4-2: Assess the security controls in accordance with the risk assessment procedures defined in the security risk assessment plan.**

**TASK 4-3: Prepare the security risk assessment report documenting the issues, findings, and recommendations from the security control risk assessment .**

**TASK 4-4: Conduct initial remediation actions on security controls based on the findings and recommendations of the security assessment report and reassess remediated control(s), as appropriate.**

**Milestone Checkpoint #4**

- Has the organization developed a comprehensive plan to assess the security controls employed within or inherited by the information system?
- Was the risk assessment plan reviewed and approved by appropriate organizational officials?
- Has the organization considered the appropriate level of assessor independence for the security control risk assessment ?
- Has the organization provided all of the essential supporting risk assessment -related materials needed by the assessor(s) to conduct an effective security control risk assessment ?
- Has the organization examined opportunities for reusing risk assessment results from previous risk assessment s or from other sources?
- Did the assessor(s) complete the security control risk assessment in accordance with the stated risk assessment plan?
- Did the organization receive the completed security risk assessment report with appropriate findings and recommendations from the assessor(s)?
- Did the organization take the necessary remediation actions to address the most important weaknesses and deficiencies in the information system and its environment of operation based on the findings and recommendations in the security risk assessment report?
- Did the organization update appropriate security plans based on the findings and recommendations in the security risk assessment report and any subsequent changes to the information system and its environment of operation?

## Step 5 AUTHORIZE Information System

### **TASK 5-1: Prepare the plan of action and milestones based on the findings and recommendations of the security risk assessment report excluding any remediation actions taken.**

The plan of action and milestones, prepared for the authorizing official by the information system owner or the common control provider, is one of three key documents in the security authorization package and describes the specific tasks that are planned:

- to correct any weaknesses or deficiencies in the security controls noted during the risk assessment ;  
and
- to address the residual vulnerabilities in the information system.

The plan of action and milestones identifies:

- the tasks to be accomplished with a recommendation for completion either before or after information system implementation;
- the resources required to accomplish the tasks;
- any milestones in meeting the tasks; and
- the scheduled completion dates for the milestones.

The strategy helps to ensure that organizational plans of action and milestones are based on:

- the security categorization of the information system;
- the specific weaknesses or deficiencies in the security controls;
- the importance of the identified security control weaknesses or deficiencies (i.e., the direct or indirect effect the weaknesses or deficiencies may have on the overall security state of the information system, and hence on the risk exposure of the organization, or ability of the organization to perform its mission or business functions); and
- the organization's proposed risk mitigation approach to address the identified weaknesses or deficiencies in the security controls (e.g., prioritization of risk mitigation actions, allocation of risk mitigation resources).

A risk risk assessment guides the prioritization process for items included in the plan of action and milestones.



## **TASK 5-2: Assemble the security authorization package and submit the package to the authorizing official for adjudication.**

The security authorization package contains:

- the security plan;
- the security risk assessment report; and
- the plan of action and milestones.

The information in these key documents is used by authorizing officials to make risk-based authorization decisions.

Providing orderly, disciplined, and timely updates to the security plan, security risk assessment report, and plan of action and milestones on an ongoing basis, supports the concept of near real-time risk management and ongoing authorization. It also facilitates more cost-effective and meaningful reauthorization actions, if required.

## **TASK 5-3: Determine the risk to organizational operations (including mission, functions, image, or reputation), organizational assets, individuals, other organizations, or the Nation.**

### **Primary Responsibility:**

The risk management strategy typically describes:

- how risk is assessed within the organization (i.e., tools, techniques, procedures, and methodologies);
- how assessed risks are evaluated with regard to severity or criticality;
- known existing aggregated risks from organizational information systems and other sources;
- risk mitigation approaches;
- organizational risk tolerance; and
- how risk is monitored over time.

## **TASK 5-4: Determine if the risk to organizational operations, organizational assets, individuals, other organizations, or the Nation is acceptable.**

The authorization decision document conveys the final security authorization decision from the authorizing official to the information system owner or common control provider, and other organizational officials, as appropriate. The authorization decision document contains the following information:

- authorization decision;
- terms and conditions for the authorization; and
- authorization termination date.

The security authorization decision indicates to the information system owner whether the system is:

- authorized to operate; or
- (not authorized to operate).

The terms and conditions for the authorization provide a description of any specific limitations or restrictions placed on the operation of the information system or inherited controls that must be followed by the system owner or common control provider. The authorization termination date, established by the authorizing official, indicates when the security authorization expires.

The authorization package provides relevant information on the security state of the information system including the ongoing effectiveness of the security controls employed within or inherited by the system. Inputs from the risk executive (function), including previously established overarching risk guidance to authorizing officials, provide additional organization-wide information to the authorizing official that may be relevant and affect the authorization decision (e.g., organizational risk tolerance, specific mission and business requirements, dependencies among information systems, and other types of risks not directly associated with the information system).

Risk executive (function) inputs are documented and become part of the security authorization decision. Security authorization decisions, including inputs from the risk executive (function), are conveyed to information system owners and common control providers and made available to interested parties within the organization (e.g., information system owners and authorizing officials for interconnected systems, chief information officers, information owners/stewards, senior managers).

The authorization decision document conveys the final security authorization decision from the authorizing official to the information system owner or common control provider, and other organizational officials, as appropriate. The authorization decision document contains the following information:

- authorization decision;
- terms and conditions for the authorization; and
- authorization termination date.

The security authorization decision indicates to the information system owner whether the system is:

- authorized to operate; or
- not authorized to operate.

The terms and conditions for the authorization provide a description of any specific limitations or restrictions placed on the operation of the information system or inherited controls that must be followed by the system owner or common control provider. The authorization termination date, established by the authorizing official, indicates when the security authorization expires.

- 1) Did the organization develop a plan of action and milestones reflecting organizational priorities for addressing the remaining weaknesses and deficiencies in the information system and its environment of operation?
- 2) Did the organization develop an appropriate authorization package with all key documents including the security plan, security risk assessment report, and plan of action and milestones (if applicable)?
- 3) Did the final risk determination and risk acceptance by the authorizing official reflect the risk management strategy developed by the organization and conveyed by the risk executive (function)?
- 4) Was the authorization decision conveyed to appropriate organizational personnel including information system owners and common control providers?

## **Step 6 MONITOR Security Controls**

**TASK 6-1: Determine the security impact of proposed or actual changes to the information system and its environment of operation.**

**TASK 6-2: Assess a selected subset of the technical, management, and operational security controls employed within and inherited by the information system in accordance with the organization-defined monitoring strategy.**

**TASK 6-3: Conduct remediation actions based on the results of ongoing monitoring activities, risk assessment of risk, and outstanding items in the plan of action and milestones.**

**TASK 6-4: Update the security plan, security risk assessment report, and plan of action and milestones based on the results of the continuous monitoring process.**

### **SECURITY STATUS REPORTING**

**TASK 6-5: Report the security status of the information system (including the effectiveness of security controls employed within and inherited by the system) to the authorizing official and other appropriate organizational officials on an ongoing basis in accordance with the monitoring strategy.**

### **ONGOING RISK DETERMINATION AND ACCEPTANCE**

**TASK 6-6: Review the reported security status of the information system (including the effectiveness of security controls employed within and inherited by the system) on an ongoing basis in accordance with the monitoring strategy to determine whether the risk to organizational operations, organizational assets, individuals, other organizations, or the Nation remains acceptable.**

### **INFORMATION SYSTEM REMOVAL AND DECOMMISSIONING**

**TASK 6-7: Implement an information system decommissioning strategy, when needed, which executes required actions when a system is removed from service.**

**Milestone Checkpoint #6**

- 1) Is the organization effectively monitoring changes to the information system and its environment of operation including the effectiveness of deployed security controls in accordance with the continuous monitoring strategy?
- 2) Is the organization effectively analyzing the security impacts of identified changes to the information system and its environment of operation?
- 3) Is the organization conducting ongoing risk assessments of security controls in accordance with the monitoring strategy?
- 4) Is the organization taking the necessary remediation actions on an ongoing basis to address identified weaknesses and deficiencies in the information system and its environment of operation?
- 5) Does the organization have an effective process in place to report the security status of the information system and its environment of operation to the authorizing officials and other designated senior leaders within the organization on an ongoing basis?
- 6) Is the organization updating critical risk management documents based on ongoing monitoring activities?
- 7) Are authorizing officials conducting ongoing security authorizations by employing effective continuous monitoring activities and communicating updated risk determination and acceptance decisions to information system owners and common control providers?



November 3, 2014

**EXECUTIVE DIRECTOR**

Cynthia M. Fornelli

**GOVERNING BOARD**

Chairman  
Robert E. Moritz, Chairman and Senior Partner  
PricewaterhouseCoopers LLP

Vice Chair  
Charles M. Allen, CEO  
Crowe Horwath LLP

Vice Chair  
Harvey J. Goldschmid, Dwight Professor of Law  
Columbia University

Joe Adams, Managing Partner and CEO  
McGladrey LLP

Wayne Berson, CEO  
BDO USA, LLP

Stephen Chipman, CEO and Executive Partner  
Grant Thornton LLP

Frank Friedman, CEO  
Deloitte LLP

Michele J. Hooper, President and CEO  
The Directors' Council

Stephen R. Howe, Jr., Managing Partner  
Ernst & Young LLP

Barry C. Melancon, President and CEO  
American Institute of CPAs

Lynn S. Paine, John G. McLean Professor of  
Business Administration, Senior Associate Dean  
for Faculty Development  
Harvard Business School

John B. Veihmeyer, U.S. Chairman and CEO  
KPMG LLP

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Re: Staff Consultation Paper: *Auditing Accounting Estimates and Fair Value Measurements***

Dear Office of the Secretary:

The Center for Audit Quality (CAQ) is an autonomous public policy organization dedicated to enhancing investor confidence and public trust in the global capital markets. The CAQ fosters high quality performance by public company auditors, convenes and collaborates with other stakeholders to advance the discussion of critical issues requiring action and intervention, and advocates policies and standards that promote public company auditors' objectivity, effectiveness, and responsiveness to dynamic market conditions. Based in Washington, D.C., the CAQ is affiliated with the American Institute of Certified Public Accountants.

The CAQ welcomes the opportunity to comment on the staff of the Office of the Chief Auditor (the Staff) of the Public Company Accounting Oversight Board's (PCAOB or the Board) *Staff Consultation Paper – Auditing Accounting Estimates and Fair Value Measurements* (the Consultation Paper). This letter represents the observations of the CAQ, but not necessarily the views of any specific firm, individual, or CAQ Governing Board member.

We concur with the Staff's observations in the Consultation Paper that over the past decade there have been changes in the financial reporting frameworks that have increased the use of accounting estimates, including fair value measurements, in the preparation of financial statements, which may have contributed to the Staff's observations that auditing these areas has proven challenging. Given the wide range of issues associated with many accounting estimates, including fair value measurements, there may not be a 'one-size-fits-all' solution to these auditing challenges. It is important to continue to analyze the root cause of these issues, particularly as it relates to the inspection deficiencies observed by the PCAOB and other global standard-setters. Further, enhancements to the auditing standards will require careful deliberation and extensive outreach with key stakeholders to develop an auditing standard that promotes audit quality and is operational (and sustainable) to changes in the evolving capital markets.

The CAQ acknowledges that the PCAOB has issued guidance, performed research, and conducted outreach to inform this project,<sup>1</sup> particularly with respect to the use of third parties in determining certain fair value measurements. We commend the

<sup>1</sup> See page 4 of the Consultation Paper for examples of outreach performed and guidance issued by the PCAOB.

Staff for recognizing the need for change and developing the Consultation Paper (and holding a special Standing Advisory Group meeting<sup>2</sup>) to continue to solicit stakeholder feedback on potential improvements to the current auditing standards.

In this letter, we offer for the Board and Staff's consideration our views regarding the topics outlined in the Consultation Paper, including the Staff's suggested changes to the related auditing standards. Our views are organized into the following sections:

- I. General Views on the Staff's Consultation Paper
- II. Management's Use of a Specialist
- III. Use of Third-Party Pricing Services
- IV. Developing a Range of Estimates
- V. Other Matters
  - a. Understanding the Development of Accounting Estimates
  - b. Evaluating the Issuer's Methods Used to Develop an Accounting Estimate
  - c. Identifying Assumptions Not Used by Management

We believe that changes in these areas may present challenges that must be carefully considered. Our suggestions are aimed at addressing such challenges, while helping to achieve the objectives of the Staff as articulated in the Consultation Paper.

## **I. General Views on the Staff's Consultation Paper**

The Consultation Paper discusses certain challenges related to auditing accounting estimates, including fair value measurements, describes the Staff's preliminary views concerning the potential need for change, and presents possible revisions to PCAOB auditing standards in response to the need for change. In particular, the Staff is considering developing a single auditing standard (potential new standard) related to auditing accounting estimates and fair value measurements that would supersede AU sec. 342, *Auditing Accounting Estimates* (AU342), AU sec. 328, *Auditing Fair Value Measurements and Disclosures* (AU328), and certain aspects or all of AU sec. 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AU332). Based on the Consultation Paper, the potential new standard could be designed to:<sup>3</sup>

- Align with the Board's risk assessment standards;<sup>4</sup>
- Generally retain the approaches to substantive testing from AU328 and AU342, but include audit procedures that would apply to both accounting estimates and fair value measurements;
- Establish more specific audit procedures relating to the use of third parties in developing accounting estimates and fair value measurements; and
- Create a more comprehensive standard related to auditing accounting estimates and fair value measurements to promote greater consistency and effectiveness in application.

The CAQ is supportive of enhancements to the auditing standards related to accounting estimates, including fair value measurements, and is generally supportive of developing a single standard that would align with the PCAOB's risk assessment standards. We note, however, that there is not a 'one-size-fits-all' solution to the issues in these complex areas, and it may be challenging to develop a single auditing standard that would address all issues related to auditing accounting estimates, including fair value measurements. In developing a potential new standard, it may be more appropriate to create overarching principles related to auditing accounting estimates, including fair value measurements, and address certain specific auditing issues or

<sup>2</sup> The PCAOB held a Standing Advisory Group meeting on October 2, 2014 to discuss matters related to auditing accounting estimates and fair value measurements.

<sup>3</sup> Page 5, the Consultation Paper.

<sup>4</sup> The PCAOB's risk assessment standards, Auditing Standards No. 8 through No. 15, set forth requirements relating to the auditor's assessment of, and response to, the risks of material misstatement in the financial statements.

topical areas (e.g., third-party pricing services) in a more targeted manner (possibly through the development of supplemental guidance). For instance, a potential new standard could start with the elements of the existing framework under the current auditing standards (i.e., AU328, AU332, and AU342) and be revised to better align with the PCAOB's risk assessment standards, while emphasizing an understanding of management's processes and the control environment. However, it is important for a potential new standard to acknowledge that all accounting estimates, including fair value measurements, are not the same, and allow for the continued application of the auditor's risk assessment process.

Although we have focused our suggestions below on auditing issues, we believe that similar issues generally confront issuers in measuring and disclosing accounting estimates, including fair value measurements. When measuring and disclosing accounting estimates, including fair value measurements, issuers are currently subject to various financial reporting frameworks (e.g., U.S. GAAP as issued by the Securities and Exchange Commission and the Financial Accounting Standards Board) and internal control frameworks (e.g., the Committee of Sponsoring Organizations of the Treadway Commission (COSO)). In developing a potential new standard, we encourage the PCAOB to consider the extent of the current requirements imposed by issuers' direct regulators, standard-setters, and other stakeholders.

Further, amending the auditing standards may not address all challenges in these potentially complex areas. For instance, calls for additional transparency regarding accounting estimates, including fair value measurements, may be better addressed through corresponding changes to the financial reporting framework. Therefore, we believe a holistic approach that examines opportunities for improvement in the roles and responsibilities of all members of the financial reporting supply chain will best meet the needs of investors and other stakeholders, and we encourage regulators and standard-setters to consider the benefits to users of the financial statements of maintaining alignment.

### Overarching Principles

The CAQ believes that enhancements to the existing auditing standards should be principles-based to adapt to the continuing evolution of accounting standards, consider the inherent uncertainty of accounting estimates, including fair value measurements, and seek to align with the expectations of users of the financial statements. Therefore, we believe that enhancements to the related auditing standards should:

- Recognize the auditor's risk assessment when determining the sufficiency and appropriateness of the cumulative nature of audit evidence;
- Promote audit quality and work to narrow, or at least not expand, stakeholders' expectation gap;
- Consider the wide range of accounts (and elements of accounts) that involve some level of estimation uncertainty and the varying levels of complexity and risk associated with different accounting estimates;
- Recognize that accounting estimates, including fair value measurements, may be subject to a significant degree of measurement uncertainty, and such inherent uncertainty will exist irrespective of the level of effort involved in auditing the estimate (e.g., not imply that a level of precision exists in an inherently imprecise measurement exclusively as a result of an audit of that measurement); and
- Be operational under the current construct of (and sustainable to changes within) the capital markets and relevant market participants (e.g., recognizing the auditor's ability to use the work of a specialist, when situations arise that may require specialized knowledge and subject matter expertise not possessed by the auditor).



## II. Management's Use of a Specialist

As noted in the Consultation Paper, the Staff is considering expanding the existing requirements under AU328,<sup>5</sup> related to testing assumptions developed by management's specialist, to apply more broadly to information provided for all accounting estimates.<sup>6</sup> As such, if management uses a specialist to develop an accounting estimate, a potential new standard could direct the auditor to test that information as if it were produced by management. In this case, the auditor would be required, as applicable, to evaluate the appropriateness of the methods, test the data used, and evaluate the reasonableness of significant assumptions, with respect to the information provided by the specialist.<sup>7</sup> This could potentially result in the auditor having to evaluate (and test) the related internal controls of the specialist. We are concerned about the impact this expansion could have on the auditor's ability to apply AU sec. 336, *Using the Work of a Specialist* (AU336), which we believe provides a fundamental basis for evaluating the work performed by a specialist.

Accounting estimates can encompass a wide variety of complex matters, many of which may require knowledge and subject matter expertise in a particular field other than accounting or auditing that could inhibit performing an independent estimate without the assistance of a specialist. In instances when management encounters complex or subjective matters that may require management to engage a specialist, AU336 provides the auditor with a framework to evaluate the work of the specialist,<sup>8</sup> including:

- Evaluating the specialist's professional qualifications;
- Obtaining an understanding of the nature of the work performed or to be performed;
- Evaluating the specialist's relationship to the client, including circumstances that might impair the specialist's objectivity; and
- When using the findings of the specialist:
  - Obtaining an understanding of the methods and assumptions used by the specialist;
  - Making appropriate tests of data provided to the specialist, taking into account the auditor's assessment of control risk; and
  - Evaluating whether the specialist's findings support the related assertions in the financial statements.

As mentioned, this framework provides a fundamental basis for evaluating the work performed by a specialist used by management, and we believe that the ability to utilize this framework should be maintained. However, we believe that the suggested requirement to test information provided by management's specialist as if the information was provided by management may hinder the profession's ability to use the work of the specialist under AU336, and may go beyond the existing requirements under Auditing Standard No. 15, *Audit Evidence* (AS15). For instance, there may be general limitations associated with information the auditor can obtain from specialists, particularly in instances where a third-party specialist is engaged by management. An auditor's access to the information used by a specialist to assist in the determination of accounting estimates may be restricted due to proprietary and confidentiality concerns of the specialist. This could impact the auditor's ability to '*test the information*'<sup>9</sup> at the level suggested by the Staff. Consequently, this also could impact the auditor's ability to review and test management's processes and procedures in developing accounting estimates, which, absent relevant subsequent events, could lead the auditor to focus more on developing independent estimates. However, the auditor may not have the expertise to develop such estimates (particularly related to complex accounting estimates) and may need to seek the assistance of a second specialist. These specialists may essentially be performing similar tasks, which could result in duplication of efforts and potential audit inefficiencies, without any evidence of a corresponding benefit to financial statement users.

<sup>5</sup> Footnote 2, paragraph 5, AU328.

<sup>6</sup> Page 37, the Consultation Paper.

<sup>7</sup> Page 38, the Consultation Paper.

<sup>8</sup> Paragraph, 3, AU336, states that the guidance in the standard is applicable for situations where management engages or employs a specialist or when the auditor engages a specialist and uses that specialist's work as evidential matter in performing substantive tests to evaluate material financial statement assertions.

<sup>9</sup> Page 38, the Consultation Paper.

The CAQ commends the Staff for acknowledging the linkage between accounting estimates, including fair value measurements, and AU336,<sup>10</sup> and we support the Staff's intentions to issue a separate consultation paper to seek additional public comment on certain matters related to AU336, including key potential audit requirements. However, we believe any enhancements to AU328 and AU342 (and possibly AU332) through the development of a potential new standard should complement and align with (and not conflict with or supersede) AU336, and it may be more appropriate for the Staff to consider conforming amendments to AU336 (if any) in conjunction with developing the potential new standard.

### III. Use of Third-Party Pricing Services

We commend the Staff for recognizing that differences may exist in the way a third-party pricing service is used in an audit, and that such differences should be acknowledged in a potential new standard.<sup>11</sup> We believe that the difference between a third-party pricing service and a specialist is generally based upon the capacity in which the third-party pricing service is used within the audit. Our suggestions below are aimed at addressing challenges associated with the use of third-party pricing services, while helping to achieve the objectives of the Staff.

#### Relevance and Reliability of Audit Evidence

The Consultation Paper suggests several factors the auditor would be required to evaluate when using information obtained from a third-party pricing service. However, it is unclear from the Consultation Paper whether the Staff is contemplating applying this approach generally to all financial instruments without consideration of the varying level of complexity and wide range of inherent risks associated with fair value measurements. It is also unclear from this approach whether information obtained from third-party pricing services can be considered sufficient appropriate audit evidence, in accordance with AS15.

Under Auditing Standard No. 13, *The Auditor's Responses to the Risks of Material Misstatement*, the auditor has the responsibility, when determining the nature, timing, and extent of audit procedures, to adjust the audit procedures based on the auditor's assessment of the associated risks. Fair value measurements generally have a wide range of inherent risks, which may require using third-party pricing services in a variety of ways (e.g., providing the auditor with a price based on observable market data or by evaluating assumptions related to unobservable inputs). Financial instruments that are evaluated based on active trading and observable market transactions often have a lower inherent risk. These types of financial instruments may be subject to more simplistic models that are closely aligned to observable market information and the auditor can perform substantive audit procedures to evaluate their pricing. Therefore, we do not believe that requiring the auditor to evaluate the methods and assumptions used to determine the pricing for each of these financial instruments would be necessary. However, financial instruments that are priced using unobservable inputs or that require the use of significant assumptions and inputs may have a higher inherent risk; therefore, it may be appropriate for the auditor to perform additional audit procedures to understand and evaluate the relevance and reliability of the information obtained from the third-party pricing service. Consequently, the need to evaluate the methods and assumptions used to determine the pricing of financial instruments varies based on the inherent risk of the instrument, and we encourage the Staff to incorporate alignment of this topic with the existing guidance in the PCAOB's risk assessment standards.

The Consultation Paper also suggests that the auditor could be required to evaluate the relevance and reliability of audit evidence obtained from a third-party pricing service at the 'asset or liability' level,<sup>12</sup> which may be perceived as requiring the auditor to evaluate the relevance and reliability of the audit evidence at an individual security basis (i.e., by CUSIP number<sup>13</sup>). However, it is unclear if performing procedures at this

---

<sup>10</sup> See the PCAOB's Standard-Setting Agenda, Office of the Chief Auditor, September 30, 2014.

<sup>11</sup> Page 43, the Consultation Paper.

<sup>12</sup> Page 46, potential amendments (b) and (c), the Consultation Paper.

<sup>13</sup> A CUSIP is a 9-character alphanumeric code that identifies a North American financial security for the purposes of facilitating clearing and settlement of trades.

level would result in an incremental benefit to a financial statement user. In many instances, information obtained from a third-party pricing service, some of which may also be publicly available, can provide relevant and reliable audit evidence.

In accordance with AS15, to be ‘appropriate audit evidence’ the information must be both relevant and reliable in providing support for the conclusions on which the auditor’s opinion is based.<sup>14</sup> Third-party pricing services generally provide independent pricing information free of influence from any one issuer (e.g., the same price is released to all customers without bias), and we believe that this absence of management bias could increase the relevance and reliability of the information and would be considered sufficient appropriate audit evidence. Therefore, we encourage the Staff to consider the relevance and reliability of third-party service information under AS15, in developing the potential new standard.

#### Transparency into Proprietary Information

The Consultation Paper states that third-party pricing services are increasingly providing products that could provide auditors with insight as to how their prices or estimates are developed.<sup>15</sup> However, consistent with our comments above regarding management’s use of a specialist, limitations exist on the extent and consistency of information that third-party pricing services currently provide, either to issuers or auditors (i.e., certain non-public proprietary information may not be shared).

Additionally, while issuers and auditors are generally given the opportunity to obtain an understanding of a third-party pricing service’s valuation process, they may not be permitted access to proprietary information. Consequently, in developing the potential new standard, we encourage the Staff to consider how the limitations of management or the auditor to ‘test’ proprietary models used to value certain investment products impacts the extent of work management or the auditor can do to understand a particular model. For instance, the Staff could conduct additional outreach with third-party pricing services to determine how to resolve these data limitation challenges.

#### Use of the Same Third-Party Pricing Service

The Staff is requesting feedback regarding whether the auditor should be required to use a different third-party pricing service from that used by management.<sup>16</sup> As discussed above, third-party pricing services generally provide independent pricing information that lacks management influence (i.e., management bias), which we believe could increase the relevance and reliability of the information. In some instances, auditors may elect to use a different third-party pricing service from that used by management; however, we do not believe this should be a requirement within the auditing standards. Nevertheless, in instances where the auditor uses the same third-party pricing service as management, the auditor could perform additional procedures to evaluate the relevance and reliability of that information to obtain the appropriate level of audit evidence.

### **IV. Developing a Range of Estimates**

In accordance with AU342, to evaluate the reasonableness of an accounting estimate, the auditor should obtain an understanding of how management developed the estimate and, based on that understanding, use one or a combination of (1) review and test the process used by management to develop the estimate, (2) develop an independent expectation of the estimate to corroborate the reasonableness of the estimate, or (3) review subsequent events or transactions occurring prior to the date of the auditor’s report to evaluate the reasonableness of the accounting estimate.<sup>17</sup> Whether using different assumptions to evaluate the sensitivity

---

<sup>14</sup> Paragraph 6, AS15.

<sup>15</sup> Page 44, the Consultation Paper.

<sup>16</sup> Question 39, the Consultation Paper.

<sup>17</sup> Paragraph 10, AU342.

of the accounting estimate, or developing an independent estimate as part of using a combination of approaches, these procedures can result in amounts that may vary widely from the recorded estimate. However, the Consultation Paper indicates that, with regard to an auditor developing an independent estimate, the potential new standard could ‘*emphasize that the estimate is limited to outcomes within the range that are supported by sufficient appropriate audit evidence.*’<sup>18</sup> We are concerned that such a statement may imply precision within a range of estimates that may not be feasible and could possibly limit the auditor’s ability to use an independent estimate in combination with one or more other approaches to evaluate the reasonableness of the accounting estimate.

There are a variety of accounting estimates with high estimation uncertainty where the auditor’s execution of one or a combination of approaches, as described in AU342, may indicate a range of ‘reasonable’ estimates (e.g., certain insurance reserves, or mortgage servicing rights), which could exceed the established materiality threshold. While the range may serve to confirm higher estimation uncertainty, we do not believe this should preclude the auditor, after performing sufficient appropriate procedures, from concluding that management’s accounting estimate is reasonable. Therefore, in developing the potential new standard, we encourage the Staff to acknowledge the variability and imprecision that may be inherent within the range of possible outcomes.

## V. Other Matters

In addition to the suggestions above, the following sections highlight additional opportunities for enhancements to the potential new standard.

### a. Understanding the Development of Accounting Estimates

The Staff suggests, within the Consultation Paper, procedures an auditor may perform to obtain an understanding of how an issuer develops its accounting estimates.<sup>19</sup> This guidance is helpful in defining the auditor’s responsibilities; however, we believe it would be beneficial to clarify what procedures an auditor should perform to comply with the phrase ‘*the auditor should obtain an understanding of how a company develops its accounting estimates,*’<sup>20</sup> particularly when management uses inputs from a third-party source. Without clarification, this phrase may imply that if management relies on information from a third-party source in determining an accounting estimate, the auditor would be required to evaluate (and test) all information used from the third-party source, including the related internal controls of the third party.

### b. Evaluating the Issuer’s Methods Used to Develop an Accounting Estimate

Consistent with requirements in the existing standards, we are supportive of the Staff requiring the auditor to evaluate whether the issuer’s methods used to develop the accounting estimates are appropriate, including evaluating whether the methods are in conformity with the applicable financial reporting framework. We believe these requirements are generally consistent with paragraph 8 of International Standards on Auditing 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* (ISA540). However, we question if it is appropriate to require the auditor to evaluate whether management’s methods are ‘*accepted within the company’s industry,*’<sup>21</sup> as facts and circumstances of a specific accounting estimate may not always be related to the issuer’s industry. For instance, the auditor could be restricted from accepting methods that are considered outside the industry norm, even though these methods may be appropriate in certain issuer-specific circumstances.

<sup>18</sup> Page 41, the Consultation Paper.

<sup>19</sup> Page 24, the Consultation Paper.

<sup>20</sup> Ibid.

<sup>21</sup> Page 33, potential amendment (a), the Consultation Paper.

Alternatively, we encourage the Staff to consider similar guidance to ISA540, which states that when a financial reporting framework does not prescribe a particular method of measurement to be used when developing the accounting estimate, the auditor may use professional judgment in obtaining an understanding of the methods used by the issuer in determining the accounting estimate.<sup>22</sup> Additionally, consideration may also be given to the impact on the risk of material misstatement when management uses a model not commonly used in a particular industry or segment.<sup>23</sup>

c. Identifying Assumptions Not Used by Management

The Consultation Paper requests feedback regarding whether the auditor should be required to ‘*identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate.*’<sup>24</sup> We believe this may be challenging to apply in practice, as there may be a number of assumptions not used in developing management’s accounting estimate, and it could be impractical for the auditor to assess the importance of these assumptions to the reasonableness of the accounting estimate. Alternatively, we believe the Staff should consider the existing guidance within ISA540 that states for situations in which there is high estimation uncertainty, the auditor is required to evaluate how management has considered alternative assumptions or outcomes and why it has rejected them or how management has otherwise addressed estimation uncertainty in making the accounting estimate.<sup>25</sup>

\*\*\*\*

The CAQ is supportive of the Staff’s consideration of developing a potential new standard related to auditing accounting estimates and fair value measurements, and commends the Board and its Staff for advancements made in this important area. However, given the complexities in these areas, there may not be a ‘one-size-fits-all’ solution to these auditing challenges and it is important to continue to analyze their root causes, particularly as it relates to the inspection deficiencies observed by the PCAOB and other global standard-setters. Further, enhancements to the auditing standards will require careful deliberation and extensive outreach with key stakeholders. The CAQ appreciates the opportunity to comment on the Consultation Paper and would be pleased to discuss our comments or answer any questions that the Staff or the Board may have regarding the views expressed in this letter.

Sincerely,



Cynthia M. Fornelli  
Executive Director  
Center for Audit Quality

---

<sup>22</sup> Paragraph A25, ISA540.

<sup>23</sup> Paragraph A26, ISA540.

<sup>24</sup> Question 28, the Consultation Paper.

<sup>25</sup> Paragraph 15(a), ISA540.

cc:

PCAOB

James R. Doty, Chairman  
Lewis H. Ferguson, Board Member  
Jeanette M. Franzel, Board Member  
Jay D. Hanson, Board Member  
Steven B. Harris, Board Member  
Martin F. Baumann, Chief Auditor

SEC

Mary Jo White, Chair  
Luis A. Aguilar, Commissioner  
Daniel M. Gallagher, Commissioner  
Michael S. Piwowar, Commissioner  
Kara M. Stein, Commissioner  
James Schnurr, Chief Accountant  
Brian T. Croteau, Deputy Chief Accountant  
Julie Erhardt, Deputy Chief Accountant  
Daniel Murdock, Deputy Chief Accountant

IAASB

Prof. Arnold Schilder, Chairman  
James Gunn, Managing Director, Professional Standards



**EXECUTIVE DIRECTOR**

Cynthia M. Fornelli

**GOVERNING BOARD**

Chair  
Cathy Engelbert, CEO  
Deloitte LLP

Vice Chair  
Joe Adams, Managing Partner and CEO  
RSM US LLP

Wayne Berson, CEO  
BDO USA LLP

Lynne M. Doughtie, U.S. Chairman and CEO  
KPMG LLP

Michele J. Hooper, President and CEO  
The Directors' Council

Stephen R. Howe, Jr., U.S. Chairman and  
Managing Partner, Americas Managing Partner,  
Ernst & Young LLP

J. Michael McGuire, CEO  
Grant Thornton LLP

Barry C. Melancon, President and CEO  
American Institute of CPAs

Robert E. Moritz, Chairman and Senior Partner  
PricewaterhouseCoopers LLP

Lynn S. Paine, John G. McLean Professor of  
Business Administration, Senior Associate Dean  
for Faculty Development  
Harvard Business School

James L. Powers, CEO  
Crowe Horwath LLP

Mary Schapiro, Vice Chairman Advisory Board  
Promontory Financial Group

December 1, 2015

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Re: Staff Consultations Papers: *Auditing Accounting Estimates and Fair Value Measurements* and No. 2015-01, *The Auditor's Use of the Work of Specialists***

Dear Office of the Secretary:

The Center for Audit Quality (CAQ) is an autonomous public policy organization dedicated to enhancing investor confidence and public trust in the global capital markets. The CAQ fosters high quality performance by public company auditors, convenes and collaborates with other stakeholders to advance the discussion of critical issues requiring action and intervention, and advocates policies and standards that promote public company auditors' objectivity, effectiveness, and responsiveness to dynamic market conditions. Based in Washington, D.C., the CAQ is affiliated with the American Institute of Certified Public Accountants.

This is an addendum to our comment letters to the PCAOB in response to recent Staff Consultation Papers regarding auditing accounting estimates, including fair value measurements, and using the work of specialists.<sup>1</sup> As stated in those letters, the CAQ is supportive of enhancements to the auditing standards related to accounting estimates that align with the PCAOB's risk assessment standards, promote audit quality by narrowing, or at least not expanding, any potential stakeholders' expectation gaps, and allow for auditors of entities of all different sizes to be able to apply the requirements consistently, while providing for flexibility in approaches.

The appendix to this letter, *Auditing Accounting Estimates and Fair Value Measurements: A Framework* (the Framework), represents a collaborative effort by members of the profession to provide the Public Company Accounting Oversight Board (PCAOB or the Board) with our views as it relates to the current standard-setting projects of the Board on auditing accounting estimates and fair value measurements as well as the use of specialists. This letter represents the observations of the CAQ, but not necessarily the views of any specific firm, individual, or CAQ Governing Board member.

In developing the Framework, the CAQ considered the views in each of the Staff Consultations Papers, as well as discussions with PCAOB staff as part of its outreach

<sup>1</sup> See November 3, 2014 comment letter in response to Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*, and July 31, 2015 comment letter in response to Staff Consultation Paper 2015-01, *The Auditor's Use of the Work of Specialists*.

efforts regarding auditing estimates and fair value measurements, as well as the use of specialists. The Framework also reflects input received from CAQ member firm representatives that have participated in recent PCAOB Standing Advisory Group discussions on this important topic.<sup>2</sup>

The Framework is principles-based. We believe this is critical in order to be operational under the current construct of (and sustainable to changes within) the capital markets and sensitive to the availability of data and information from specialists, pricing services and other relevant market participants.

Within the Framework, we offer suggestions for auditing accounting estimates that build upon the overarching principles described in our comment letters. Those principles state that any enhancements to existing auditing standards should:

- Recognize the relationship between the auditor's risk assessment and the audit procedures designed to sufficiently and appropriately respond to that risk;
- Consider the range of accounts (and elements of accounts) that involve varying levels of estimation uncertainty and the varying levels of complexity in measurement and risk associated with different accounting estimates;
- Recognize that accounting estimates may be subject to a significant degree of measurement uncertainty, and such inherent uncertainty will exist irrespective of the level of effort involved in auditing the accounting estimate (e.g., not imply that a level of precision exists in an inherently imprecise measurement exclusively as a result of an audit of that measurement); and
- Continue to recognize that auditors may use the work of a specialist when situations arise that require specialized knowledge and subject matter expertise in a field other than accounting or auditing.

Again, we appreciate the opportunity to share our views regarding auditing accounting estimates and fair value measurements and the use of specialists. We stand ready to assist you in any way we can, including participation in any future meetings or roundtables.

Sincerely,



Cynthia M. Fornelli  
Executive Director  
Center for Audit Quality

Attachment

Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework

cc:

PCAOB

James R. Doty, Chairman  
Lewis H. Ferguson, Board Member  
Jeanette M. Franzel, Board Member  
Jay D. Hanson, Board Member  
Steven B. Harris, Board Member  
Martin F. Baumann, Chief Auditor and Director of Professional Standards

---

<sup>2</sup>The PCAOB held Standing Advisory Group meetings on October 2, 2014, June 18, 2015, and November 13, 2015 to discuss matters related to auditing accounting estimates and fair value measurements and the use of specialists.



SEC

Mary Jo White, Chair

Luis A. Aguilar, Commissioner

Michael S. Piwowar, Commissioner

Kara M. Stein, Commissioner

James Schnurr, Chief Accountant

Wesley R. Bricker, Deputy Chief Accountant

Brian T. Croteau, Deputy Chief Accountant

Julie Erhardt, Deputy Chief Accountant

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

**Index**

1	Overview .....	A-2
1.1	Background .....	A-2
1.2	Design of the Framework.....	A-2
2	Alignment with the Auditor’s Risk Assessment Process.....	A-3
2.1	Consideration of Thematic Elements of ISA 540.....	A-3
2.2	Performing a Risk Assessment for Accounting Estimates.....	A-4
2.3	Consideration of Management’s Process .....	A-6
2.4	Accounting Estimates with a High Level of Estimation Uncertainty.....	A-7
2.5	Consideration of Management Bias.....	A-8
2.6	Revisions of Risk Assessment.....	A-9
3	The Auditor’s Responses to the Assessed Risks of Material Misstatement .....	A-10
3.1	Testing Controls for Accounting Estimates.....	A-10
3.2	Substantive Testing Approaches.....	A-11
3.3	Considerations for Evaluating Audit Evidence .....	A-12
3.4	Evaluating the Company’s Method Used to Develop an Accounting Estimate .....	A-13
3.5	Evaluating the Reasonableness of Significant Assumptions .....	A-14
3.6	Developing a Reasonable Range for an Accounting Estimate .....	A-16
3.7	Accounting Estimates with Significant Risks.....	A-17
4	Using the Work of an Auditor’s Specialist .....	A-19
4.1	Evaluating the Knowledge, Skill, and Objectivity of an Auditor’s Specialist .....	A-19
4.2	Informing an Auditor’s Specialist of His or Her Responsibilities.....	A-21
4.3	Evaluating the Work of an Auditor’s Specialist.....	A-22
5	Using the Work of the Company’s Specialist.....	A-23
5.1	Evaluating the Knowledge, Skill and Objectivity of a Company’s Specialist .....	A-24
5.2	Evaluating the Work of a Company’s Specialist.....	A-25
6	Use of Third-Party Pricing Sources Not Acting as a Specialist .....	A-25

## **Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework**

### **1 Overview**

#### **1.1 Background**

- Over the past decade, changes in financial reporting frameworks have led to an increase in the use of accounting estimates (and, in particular, fair value measurements)<sup>1</sup> in the preparation of financial statements. The complexity associated with certain accounting estimates also has increased during this time, as has the subjectivity that can be associated with their underlying assumptions.
- Given the many different types of accounting estimates, the varying nature of the related estimation processes, and the underlying inputs and assumptions, there may not be a ‘one-size-fits-all’ solution that enhances existing auditing standards relating to accounting estimates. It is important that any improvements to existing auditing standards result in scalable requirements and guidance that audit firms of all sizes can apply to issuers of all sizes.

#### **1.2 Design of the Framework**

- This framework is intended to enhance and clarify the existing auditing standards by:
  - Improving the linkage between the performance requirements in the PCAOB’s existing auditing standards<sup>2</sup> and the auditor’s risk assessment process when determining an appropriate audit response (e.g., PCAOB Auditing Standard No. 12, *Identifying and Assessing Risks of Material Misstatement* (AS 12) and PCAOB Auditing Standard No. 13, *The Auditor’s Responses to the Risks of Material Misstatement* (AS 13));<sup>3</sup>
  - Clarifying the objectives and scope of the standards to reduce any perceived inconsistencies in expectations for substantive testing of fair value measurements versus other accounting estimates, including instances in which the auditor uses the work of a specialist when auditing accounting estimates; and
  - Providing supplemental or application guidance to promote greater consistency and more effective application across the audit profession.
- Because of the variety of accounting estimates, this framework includes examples to illustrate key aspects of the framework. These examples are highlighted throughout this document to facilitate identification of what could be considered supplemental or application guidance. This framework also includes explanatory narrative descriptions that elaborate on the thought process behind a

---

<sup>1</sup> This framework acknowledges and adopts an approach similar to that outlined in footnote 1 of the Staff Consultation Paper on Auditing Accounting Estimates and Fair Value Measurements (Estimates Staff Consultation Paper), in that it generally uses the term “accounting estimate” to mean both accounting estimates and fair value measurements, unless noted otherwise. When discussing existing requirements of extant standards, this framework generally uses the terms “accounting estimate” and “fair value measurement” to have the same meaning as those terms have in AU sec. 328, Auditing Fair Value Measurements and Disclosures (AU 328) and AU sec. 342, Auditing Accounting Estimates (AU 342).

<sup>2</sup> When auditing accounting estimates, including fair value measurements, performance requirements are currently included in AU 328, AU 342, AU sec. 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AU 332), and, when a specialist is involved, AU sec. 336, *Using the Work of a Specialist* (AU 336).

<sup>3</sup> We agree with the view in the Estimates Staff Consultation Paper that any changes to the auditing standards related to accounting estimates should build upon the principles in the PCAOB’s risk assessment standards, particularly AS 12 and AS 13. In this framework we provide specific suggestions to demonstrate how auditors may apply the risk assessment requirements in the context of auditing accounting estimates and when using the work of a specialist.

## **Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework**

requirement to facilitate the application of auditor judgment to a variety of facts and circumstances.

- We recognize that PCAOB auditing standards typically do not include such guidance; however, we believe doing so would provide clarity in the objectives of certain aspects of the standards and lead to greater consistency in application.
- We believe this framework will help to improve audit quality regardless of how enhancements ultimately are codified in the standards (i.e., the creation of one or more new standards or enhancements to existing standards).

## **2 Alignment with the Auditor’s Risk Assessment Process**

- The CAQ believes that many of the performance requirements in the PCAOB’s existing auditing standards for auditing accounting estimates and using the work of specialists are appropriate. We therefore start with the objectives of these existing auditing standards, and recommend enhancements to both better align these standards with the PCAOB’s risk assessment standards and emphasize the importance of the auditor obtaining an understanding of management’s processes, including management’s use of specialists and other third-party sources, and system of internal control. In providing these recommended enhancements, we considered views expressed in the Staff Consultation Papers and concepts from relevant International Standards on Auditing (ISA), in addition to the existing PCAOB auditing standards.
- This framework is designed to apply to audit procedures performed over all accounting estimates, regardless of whether the auditor or the company uses the work of a specialist. The auditor’s risk assessment, which includes an evaluation of the knowledge, skill, and objectivity of a company’s specialist(s), will assist the auditor in designing and implementing appropriate responses to risks of material misstatement.

### **2.1 Consideration of Thematic Elements of ISA 540**

- ISA 540,<sup>4</sup> which builds upon the risk assessment guidance in ISA 315<sup>5</sup> and ISA 330,<sup>6</sup> illustrates thematically how the risk assessment standards could be aligned with the standards relating to accounting estimates. Similarly, revisions to PCAOB standards could build upon the principles of AS 12 and AS 13 and include incremental considerations specific to accounting estimates to guide the auditor’s consideration of the subjectivity of accounting estimates, the susceptibility of accounting estimates to fraud, and other factors when performing a risk assessment.<sup>7</sup>
- The following are concepts from ISA 540 specific to accounting estimates that could be incorporated or enhanced within the PCAOB’s risk assessment standards.<sup>8</sup>

<sup>4</sup> ISA 540, *Auditing Accounting Estimates, Including Fair Value Estimates, and Related Disclosures*. Although the International Auditing and Assurance Standards Board is considering changes to ISA 540, the concepts in the standard as currently written provide a general basis for consideration of enhancements to PCAOB auditing standards.

<sup>5</sup> ISA 315, *Identifying and Assessing the Risks of Material Misstatement Through Understanding the Entity and Its Environment*.

<sup>6</sup> ISA 330, *The Auditor’s Responses to Assessed Risks*.

<sup>7</sup> ISA 540 illustrates the type of considerations we believe should be incorporated into the auditing standard(s) related to accounting estimates, all of which are already embodied in the PCAOB’s risk assessment standards (i.e., AS 12 and AS 13).

<sup>8</sup> We acknowledge that some of these items are already contained in the PCAOB’s risk assessment standards.

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

- Obtain an understanding of the following in order to provide a basis for the identification and assessment of the risks of material misstatement for accounting estimates:
  - The applicable financial reporting framework;
  - How management identifies those transactions, events and conditions that may give rise to the need for accounting estimates (including how management monitors and identifies changes in circumstances that may give rise to new, or the need to revise existing, accounting estimates); and
  - How management makes the accounting estimates, and an understanding of the data on which they are based, including:
    - The method or model used in making the accounting estimate;
    - Relevant controls;
    - Whether management has engaged a specialist;
    - The assumptions underlying the accounting estimates;
    - Whether there was or should have been a change from the prior period in the methods for making the accounting estimates, and if so, why; and
    - Whether, and if so, how management has assessed the effect of estimation uncertainty.
- In addition to considering conditions specific to accounting estimates in the auditor's risk assessment, supplemental guidance would serve to further clarify the auditor's expected performance in assessing risk and appropriately designing audit procedures to obtain sufficient relevant audit evidence.

## **2.2 Performing a Risk Assessment for Accounting Estimates**

- AS 12, paragraph 59 addresses how the auditor determines which risks of misstatement represent risks of material misstatement at the financial statement and assertion level, and those risks of material misstatement that are significant risks. AS 12, paragraph 59(e) states that, in identifying and assessing risks of material misstatement, the auditor should identify significant accounts and disclosures and their relevant assertions.
- In addition, consistent with paragraph 16 of PCAOB Auditing Standard No. 9, *Audit Planning* (AS 9), based on the nature of accounting estimates contained in significant accounts and disclosures, the auditor determines whether specialized skill or knowledge in relation to one or more aspects of the accounting estimates is required to:
  - Perform an effective risk assessment;
  - Plan or perform audit procedures; or
  - Evaluate audit results.
- Generally speaking, accounting estimates are present in most accounts and disclosures in the financial statements. Risks related to the data, model, method and assumptions used exist for all accounting estimates, and the relative significance of those risks vary across the many types of accounting estimates.

***Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework***

- It is not appropriate to presume that every relevant assertion associated with an accounting estimate represents a significant risk. Similarly, it is not appropriate to presume that every accounting estimate gives rise to a significant risk.
- Rather, in order to perform an appropriate risk assessment, the auditor considers the following with respect to management’s process for determining the estimate:
  - The relevant inputs;
  - The complexity of those inputs and the subjectivity of the judgments related to them; and
  - Alternative methods that may support the reasonableness of the accounting estimate in the auditor’s consideration of the risk(s) relevant to a particular significant account or disclosure.
- In addition, the auditor considers management’s ability and expertise to determine an accounting estimate (including whether management has used a specialist to assist with this determination), as well as whether the knowledge and skills of an auditor’s specialist may be needed.
- The auditing standards acknowledge that “the components of a potential significant account or disclosure might be subject to significantly differing risks.”<sup>9</sup> This is particularly true for accounting estimates, and may result in the need for the auditor to disaggregate a significant account in order to perform an effective risk assessment.
- The auditing standards could expand upon the concepts in AS 12<sup>10</sup> to clarify that the auditor considers the potential sources of risk of material misstatement within a significant account at a sufficiently disaggregated level based on auditor judgment in order to enable the auditor to appropriately determine the nature of audit procedures to perform. In other words, the auditor completes the risk assessment at a disaggregated level within the components of an account in order to design appropriate audit procedures. In determining the appropriate level at which to assess the risk of material misstatement for a particular account or components of an account, the auditor could consider the information presented in the footnote disclosures related to that particular account.
  - While we suggest the auditor disaggregate components of an account when performing a risk assessment, we do not suggest requiring disaggregation to the lowest possible unit of account level (e.g., individual security basis by CUSIP number). In many cases, after considering factors such as the similarity of the nature of the accounting estimates, the consistency of management’s process for determining accounting estimates, and the sources of risk, the auditor may conclude that certain components are sufficiently similar based on their risk, such that they do not need to be disaggregated further for purposes of designing appropriate audit procedures.

---

<sup>9</sup> AS 12, paragraph 63.

<sup>10</sup> Specifically the concepts in paragraph 59 regarding the identification and assessment of risks of material misstatement at the financial statement level and the assertion level.

## ***Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework***

### **Illustrative Example 1: Performing a Risk Assessment: Disaggregation**

In order to perform an assessment of risk over a company's allowance for loan losses (ALL), it may be necessary for the auditor to identify individual components of the accounting estimate and assess the risks relevant to each component.

An ALL typically includes a general loss reserve and a specific loss reserve. Accordingly, it may not be appropriate to view the ALL as if it were a single accounting estimate or account. The risks associated with the general loss reserve may include inaccurate inputs (e.g., historical losses by loan type) and inappropriate qualitative adjustments to the historical loss rates. The risks associated with the specific loss reserves may include unreasonable cash flow projections, inappropriate discount rates, and stale appraisals. The significance of these risks may differ for a particular company and would be addressed through individual planned audit responses.

### **Illustrative Example 2: Performing a Risk Assessment: Disaggregation**

As it relates to investments measured and disclosed at fair value, while the materiality of the account balances are driven by the quantity and value of the underlying securities, the valuation risk associated with investments often is driven by the characteristics of the investments held (e.g., similar valuation models, significant inputs to a valuation model, nature and source of significant assumptions for a type of investment), the observability of pricing inputs and the complexity of valuation models used to estimate fair value. Individual securities within a particular category of investments may share common characteristics with other securities in another category of investments. In those situations, the auditor determines as part of understanding management's estimation process which securities contain sufficiently homogenous characteristics such that the auditor can draw conclusions about them from testing them as a group. Once that is determined, disaggregation of the significant account to a level that includes homogenous securities into a single group would be sufficient to perform an effective risk assessment. This would lead to a more effectively executed risk-based approach in which the auditor plans procedures that are designed to obtain more persuasive audit evidence that corresponds to the auditor's assessment of risk (as discussed in AS 13, paragraph 9(a)).

## ***2.3 Consideration of Management's Process***

- Assessing management's process for determining accounting estimates is an important element of the auditor's risk assessment process. In preparing accounting estimates, management selects or develops assumptions that represent their judgment of the most likely circumstances and events with respect to the relevant factors.<sup>11</sup> The significance of management's assumptions, along with other factors such as the sensitivity of the assumptions to variability, affects the

<sup>11</sup> AU 342, paragraph 05(d).

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

auditor's determination of the risk of material misstatement associated with a particular accounting estimate.<sup>12</sup>

- In some cases, events that occur after the balance sheet date may provide more persuasive audit evidence than the auditor's consideration of information used to corroborate management's assumptions used to derive an accounting estimate. In certain of these cases, the related estimation uncertainty may be substantially reduced by the recent information available to the auditor.

**2.4 Accounting Estimates with a High Level of Estimation Uncertainty**

- Part of the auditor's risk assessment process includes evaluating the degree of estimation uncertainty associated with an accounting estimate. Certain accounting estimates may include a level of estimation uncertainty that exceeds the auditor's established materiality threshold; two appropriately qualified and objective professionals may arrive at different results based on the same facts because they apply different but equally reasonable assumptions. We believe it is important that the auditing standards acknowledge this and emphasize that, in those circumstances, both a comprehensive evaluation in light of the circumstances and facts involved and specific documentation regarding conclusions are important.
- For accounting estimates with a high level of estimation uncertainty, the range of reasonable outcomes may exceed the auditor's established materiality threshold. In such cases, the level of estimation uncertainty may not be able to be reduced to an amount less than the auditor's established materiality threshold regardless of the amount of relevant and reliable audit evidence accumulated. In those circumstances, the auditor evaluates whether management's disclosures adequately describe the estimation uncertainty inherent in the accounting estimate in accordance with the applicable financial reporting framework.
  - Supplemental guidance that acknowledges that there is variability and imprecision in accounting estimates having high estimation uncertainty would be beneficial. This guidance could remind auditors of their responsibility to perform sufficient appropriate procedures to be able to reasonably conclude that the accounting estimate has been determined (a) in accordance with the applicable financial reporting framework, (b) using a consistent approach from period to period (if appropriate) and (c) that there is adequate disclosure (in accordance with the applicable financial reporting framework) regarding the methods and assumptions such that the estimation uncertainty is transparent to the user. Auditors would continue to assess the facts and circumstances through the date of the auditor's report.

---

<sup>12</sup> AU 342, paragraph 05.



## **Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework**

### **Illustrative Example 3: Accounting Estimates with a High Level of Estimation Uncertainty**

Certain long-term contracts that are developmental in nature are inherently complex and have high estimation uncertainty. When accounting for such contracts using the percentage of completion method, management's accounting estimate of the estimated costs of completion could have a range of outcomes that exceeds the auditor's established materiality threshold. This may be due, in part, to technological specifications within the contract. In that situation, it may not be possible to develop a reasonable range for the accounting estimate that is less than the auditor's established materiality threshold.

## **2.5 Consideration of Management Bias**

- When evaluating management's judgments and decisions in their determination of accounting estimates as part of the auditor's risk assessment process, the auditor applies professional skepticism when identifying whether there are any indicators of management bias.
- When evaluating potential bias, including that of a company's specialist, it is important for the auditor to consider the incentives and pressures on management to manipulate the financial statements, and opportunities to do so.
- When a risk of material misstatement due to fraud has been identified related to an accounting estimate, the auditor applies AU sec. 316, *Consideration of Fraud in a Financial Statement Audit* (AU 316), in addition to this framework.
  - Examples of incentives and pressures may include the level of pressure or focus by management or investors on key performance indicators, the structure of executive compensation arrangements, and economic or industry conditions.
  - Examples of opportunities may include the susceptibility of the company's accounting systems to manipulation due to inherent risks from management override, collusion, or poorly designed or implemented internal control structures.
- When evaluating potential bias, the auditor evaluates the qualitative aspects of the company's accounting practices, including potential bias in management's judgments about the amounts and disclosures in the financial statements. In addition to applying the guidance in paragraphs 24-27 of PCAOB Auditing Standard No. 14, *Evaluating Audit Results*, and paragraphs 63-65 of AU 316, the auditor considers performing the following risk assessment procedures:
  - Review the accuracy of prior year accounting estimates to assess whether there is any indication of bias in management's estimation process.
  - Evaluate whether there is a pattern of bias in management's accounting estimates (e.g., whether management's rationale to use the various assumptions in an accounting estimate(s) is driven by its bias for a particular result).
  - When the applicable financial reporting framework does not prescribe a specific methodology, consider whether the accounting estimate typically is developed using an estimation methodology that is an industry standard or is a generally applied approach (regardless of the industry). If the auditor determines that management's method used to determine the accounting estimate is not a generally applied approach or, when

## **Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework**

applicable, is not consistent with methods used in the company's industry, the auditor evaluates how that compares to the facts and circumstances specific to the company and whether management's rationale to use the unique methodology is driven by its bias for a particular result.

- The auditor also should be alert to contradictory evidence when evaluating management's estimation process, and should not ignore significant assumptions within management's estimate that contradict other information known to the auditor. If contradictory evidence is identified, the auditor gives appropriate consideration to whether that evidence is indicative of management bias or could result in a material misstatement.
- If indicators of management bias are identified, the auditor evaluates how those indicators may affect the auditor's conclusion as to whether his or her risk assessment and related responses remain appropriate with respect to the affected accounting estimates. The auditor also considers whether those indicators of bias have implications for the other areas of the audit.
  - In these situations, the auditor also communicates to the audit committee the results of the auditor's evaluation of accounting estimates included in the financial statements, which are individually reasonable, that indicate a possible bias on the part of the company's management. This is consistent with paragraph 13 of PCAOB Auditing Standard No. 16, *Communicating with Audit Committees*.

### **2.6 Revisions of Risk Assessment**

- This framework recognizes the iterative nature of the planning process and allows for the auditor to modify or tailor the substantive testing approach from the planned audit procedures to obtain sufficient appropriate audit evidence and document his or her rationale for doing so in light of changes in facts and circumstances.<sup>13</sup>
- This is particularly relevant in instances where the auditor obtains evidence during the course of the audit that is contradictory to the audit evidence on which the auditor originally based his or her risk assessment, or that indicates the existence of management bias that was not previously identified as part of the risk assessment process. If the auditor obtains evidence that contradicts the original risk assessment, the auditor revises the related risk assessments and modifies the planned nature, timing, or extent of substantive procedures as necessary.<sup>14</sup>

---

<sup>13</sup> This concept is consistent with paragraph 74 of AS 12.

<sup>14</sup> AS 13, paragraph 46.

## ***Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework***

### **Illustrative Example 4: Revisions to Risk Assessment**

An auditor initially determines that he or she will substantively test an accounting estimate by reviewing and testing the process used by management to develop the accounting estimate. If the auditor identifies errors or other flaws in management's process for determining the accounting estimate (e.g., income projections that are not supported by historical results and current trends in the company's business results), the auditor may determine that reviewing and testing management's process alone would not provide sufficient appropriate audit evidence about the reasonableness of management's estimate as recorded in the financial statements. If that is the case, the auditor would revise his or her planned audit approach to include other procedures, such as developing an independent expectation of the accounting estimate to corroborate the reasonableness of management's accounting estimate or reviewing subsequent events or transactions occurring prior to the date of the auditor's report.

An auditor who initially plans to substantively test an accounting estimate by reviewing and testing management's process or developing an independent expectation may revise his or her approach to review subsequent events if reliable evidence becomes available as a result of a transaction occurring after the balance sheet date.

## ***3 The Auditor's Responses to the Assessed Risks of Material Misstatement***

### ***3.1 Testing Controls for Accounting Estimates***

- As part of the risk assessment process (as discussed in section 2), the auditor obtains an understanding of management's process for determining the accounting estimate, including understanding whether and, if so, how management has used a specialist.
- If the auditor plans to rely on controls to reduce the amount of substantive procedures to perform, the auditor identifies the relevant controls for each risk of material misstatement at the relevant assertion level, and assesses the effectiveness of their design and implementation. In addition, the auditor also tests the operating effectiveness of those controls.
- If the auditor does not plan to rely on controls to reduce the amount of substantive procedures to be performed, or if the auditor determines that the controls necessary to sufficiently address the assessed risks of material misstatement for relevant assertions are missing or ineffective, the auditor assesses control risk at the maximum level.
- With regard to accounting estimates that give rise to a significant risk, the auditor should evaluate the design of the company's controls that are intended to address risks of material misstatement due to fraud and other significant risks, and determine whether those controls have been

## ***Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework***

implemented, if the auditor has not already done so when obtaining an understanding of internal control.<sup>15</sup> Examples of these procedures could include an evaluation of:

- How management determines the completeness, relevance and accuracy of the data used to develop accounting estimates.
- Controls related to the review and approval of accounting estimates, including the assumptions or inputs used in their development, by sufficiently competent and experienced members of management or those charged with governance.
- The segregation of duties between those committing the company to the underlying transactions and those responsible for developing and reviewing the accounting estimates, including whether the assignment of responsibilities appropriately takes into account the nature of the company and its products or services (e.g., relevant segregation of duties may include an independent function responsible for estimation and validation of fair value whose remuneration is not explicitly tied to such estimates of fair value).<sup>16</sup>

### ***3.2 Substantive Testing Approaches***

- This framework retains the three substantive testing approaches included in the existing standards.
- When determining a substantive testing approach (or combination of approaches) to address the identified risks of material misstatement, the auditor takes into account his or her understanding of the company and its environment, including its internal control, his or her understanding of management's estimation process, and the results of the auditor's risk assessment. In making this determination, the auditor assesses whether it is appropriate to use of the work of an auditor's specialist to address the identified risks of material misstatement.
- Audit procedures should be designed to address the assessed risk of material misstatement at both the overall financial statement level and at the relevant assertion level. With appropriate consideration to the above factors, the auditor uses one or a combination of the following three substantive testing approaches:
  - (a) Review and test management's significant assumptions and the model and underlying data used to develop the accounting estimate.
    - The nature, timing and extent of testing management's assumptions, the valuation model and the underlying data should be commensurate with the assessed level of risk and the relevance and reliability of the audit evidence that can be obtained through such testing.
  - (b) Develop an independent expectation of the accounting estimate to corroborate the reasonableness of management's accounting estimate.
    - Develop a point estimate or a range to evaluate management's point estimate. For this purpose:

<sup>15</sup> Consistent with AS 12, paragraph 72.

<sup>16</sup> Consistent with the themes in ISA 540.

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

- The auditor may choose to develop an independent accounting estimate to compare to management's estimate by either (1) using management's assumptions or (2) developing his or her own independent assumptions. When the auditor's independent accounting estimate uses assumptions or methods that differ from those used by management, the auditor nevertheless understands management's assumptions. The auditor uses that understanding to verify that his or her independent accounting estimate takes all significant variables into consideration and to evaluate any significant difference from management's accounting estimate.<sup>17</sup> This understanding should be obtained at the level of disaggregation determined by the auditor's risk assessment procedures, and the depth of understanding and rigor of substantive testing should be commensurate with the associated level of risk for that disaggregated group.

(c) Review subsequent events and transactions occurring prior to the date of the auditor's report.

- Determine whether events occurring up to the date of the auditor's report provide relevant and reliable audit evidence for the recorded accounting estimate.

### **3.3 Considerations for Evaluating Audit Evidence**

- The auditor applies PCAOB Auditing Standard No. 15, *Audit Evidence* (AS 15), for purposes of designing and performing procedures to obtain sufficient appropriate audit evidence. In doing so, the auditor considers evidence obtained in other areas of the audit that contradicts evidence provided by the company to support an accounting estimate. This includes situations where the auditor has chosen to develop an independent expectation of an accounting estimate. Regardless of the nature of planned audit procedures, the auditor understands management's process for developing the accounting estimate and considers whether the auditor is aware of potentially contradictory audit evidence, either related to the estimate or from evidence obtained elsewhere in the audit.
- The existence of contradictory evidence does not necessarily indicate that management's accounting estimate is unreasonable. The nature, relevance and source (e.g., internal management representations as opposed to an external source such as published industry data) of contradictory evidence should be considered in conjunction with other evidence obtained, including evidence corroborating management's conclusion. The reasonable expectations of the auditor also should be considered (e.g., if variances within a certain threshold are expected, they may not be considered contradictory evidence).

---

<sup>17</sup> AU 328, paragraph 40.

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

- A wide range of reasonableness for an accounting estimate does not necessarily represent contradictory evidence. It may, however, reflect a higher level of estimation uncertainty, which may be an indicator of a significant risk.
- The auditor also gives appropriate consideration to information known to the auditor that contradicts management's conclusion. Once an appropriate consideration has been made, if the auditor concludes that there is sufficient corroborative evidence to support management's conclusion, the auditor documents those considerations. While the auditor considers alternative methods or assumptions not used by management, an auditor is not required to perform an exhaustive search for contradictory evidence.

### **3.4 Evaluating the Company's Method Used to Develop an Accounting Estimate**

- When evaluating a company's method used to develop an accounting estimate, the auditor determines whether the method used by management in developing the accounting estimate is appropriate in the context of the applicable financial reporting framework. In doing so, the auditor reviews management's model, significant assumptions and other inputs and data used to develop the accounting estimate. The nature, timing and extent of these procedures should correspond with the assessed level of risk, as determined based on the process discussed in section 2, and the relevance and reliability of the audit evidence that can be obtained through such testing.
- Specifically, based on the assessed risk of material misstatement as described in section 2, the auditor evaluates whether:
  - Management has appropriately applied the requirements of the applicable financial reporting framework relevant to the accounting estimate;
  - The method(s) for making the accounting estimate(s) is appropriate and have been applied consistently from period to period, if consistency is appropriate; and
  - Changes, if any, in the accounting estimate(s) or in the method(s) for making the estimate from the prior period are appropriate in the circumstances.
- When the applicable financial reporting framework does not prescribe a particular method of measurement to be used for developing an accounting estimate, the auditor could consider the methods used within a company's industry in determining whether management's method is acceptable, if doing so is determined to be appropriate in response to the associated risk. In these instances, the auditor considers:
  - How management considered the nature of the asset or liability being estimated when selecting a particular method.
  - Whether the company operates in a particular business, industry or environment in which there are methods commonly used to make the particular type of accounting estimate.<sup>18</sup>
    - Additionally, this framework acknowledges the impact on the risk of material misstatement when management uses a method not commonly used in a particular industry or segment (and that method is unique to the issuer's industry). For example, there may be greater risks of material misstatement when

---

<sup>18</sup> Consistent with the concepts in paragraph A25, ISA 540.

## **Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework**

management is departing from a method commonly used in a particular industry or environment.<sup>19</sup>

- If the auditor determines that management’s method used to determine the accounting estimate is not consistent with methods used in the company’s industry, the auditor considers why the method selected is being used and whether the selection of that method is an indication of management bias.
- The auditor also evaluates the adequacy of management’s disclosure about the method used to determine the accounting estimate, including whether it is in conformity with the applicable financial reporting framework. In doing so, the auditor also considers whether the applicable financial reporting framework contemplates the use of more than one estimation method, as Accounting Standards Codification Topic 820, *Fair Value Measurement*, acknowledges will be appropriate in some cases.<sup>20</sup> Evaluating whether management uses more than one estimation method – and the reasons for doing so (or not doing so) – could be useful in evaluating the range of reasonableness for accounting estimates with significant estimation uncertainty.

### **3.5 Evaluating the Reasonableness of Significant Assumptions**

- Auditors plan and perform audit procedures to address the identified risks of material misstatement related to accounting estimates, which can arise from a variety of sources, including external factors (e.g., conditions in the company’s industry and environment) and company-specific factors (e.g., the nature of the company, its activities, and internal control over financial reporting).
- The auditor’s response to risks of material misstatement related to accounting estimates includes considering the sensitivity of the accounting estimate to its underlying significant assumptions and determining whether any significant assumptions are not supported by sufficient appropriate evidence. Although these procedures may be planned and performed at the relevant assertion and significant account level, the auditor determines whether the overall approach is responsive to the risks of material misstatement for the financial statements taken as a whole (see detailed discussion within section 2).
- This framework considers a description of significant assumptions that recognizes that “an assumption used in making an accounting estimate may be deemed to be significant if a reasonable variation in the assumption would materially affect the measurement of the accounting estimate.”<sup>21</sup>
  - The determination of which significant assumptions are inherently sensitive (i.e., those for which a reasonable variation in the assumption would materially affect the accounting estimate) will be informed by the auditor’s risk assessment process, including the understanding of management’s method for determining the accounting estimate, and the evaluation of the inherent estimation uncertainty within a particular accounting estimate. In other words, an auditor determines through its risk assessment procedures

<sup>19</sup> Consistent with the concepts in paragraph A26, ISA 540.

<sup>20</sup> Paragraph 820-10-35-24B.

<sup>21</sup> Consistent with the concepts in ISA 540, paragraph A107.

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

the level of estimation uncertainty within an accounting estimate and the drivers of that uncertainty.

- Consistent with AU 328 paragraph 33, we believe the auditor should focus on the assumptions that management has identified as significant to the accounting estimate. AU 328 paragraph 34 states that if management has not identified particularly sensitive assumptions, the auditor considers whether to employ techniques to identify those assumptions.
- Matters that auditors may consider in evaluating the reasonableness of significant assumptions include:<sup>22</sup>
  - Whether individual significant assumptions appear reasonable.
  - Whether the significant assumptions are interdependent and internally consistent.
  - Whether the significant assumptions appear reasonable when considered collectively or in conjunction with other assumptions, either for that accounting estimate or for other accounting estimates.
  - Whether the significant assumptions appropriately reflect observable marketplace assumptions (when applicable based on the accounting estimate's applicable financial reporting framework).
  - Whether significant assumptions that reflect management's expectations of the outcome of its objectives and strategies are consistent with:
    - The general economic environment and the company's economic circumstances.
    - The plans of the company.
    - Significant assumptions made in prior periods, if relevant.
    - Experience of, or previous conditions experienced by, the company, to the extent this historical information may be considered representative of future conditions or events.
    - Other assumptions used by management relating to the financial statements.
  - Whether significant assumptions that depend on management's ability and intent to carry out certain actions are reasonable in light of:<sup>23</sup>
    - Management's history of carrying out its stated intentions.
    - Written plans and other documentation, including, where applicable, formally approved budgets, authorizations or minutes.
    - Management's reasons for a particular course of action.
    - The auditor's review of events occurring subsequent to the date of the financial statements and up to the date of the auditor's report.
    - Where relevant, management's ability to carry out a particular course of action given the company's economic circumstances, including the implications of its existing commitments.

<sup>22</sup> Consistent with the concepts in ISA 540, paragraphs A77-A81.

<sup>23</sup> Depending on the nature of the accounting estimate and the requirements of the applicable financial reporting framework, appropriate consideration should be given to a market participant's ability and intent by applying these factors from a market participant perspective (as opposed to entity-specific).



## ***Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework***

- When considering the matters listed above, the auditor remains alert to contradictory evidence and does not ignore evidence that contradicts other audit evidence known to the auditor. If contradictory evidence is identified, the auditor gives appropriate consideration to whether that evidence is indicative of management bias or an error, and performs further procedures, as appropriate.
- The auditor considers his or her understanding of management’s method for determining the accounting estimate when evaluating whether any significant assumptions may exist; however, the auditor need not necessarily consider all assumptions used by management in developing their accounting estimate. To do so might focus undue attention on individual assumptions rather than their impact on the development of the accounting estimate as a whole. Existing auditing standards, and this framework, require the auditor to focus his or her efforts on the assumptions that are significant to the development of the accounting estimate.
- For accounting estimates with a high level of estimation uncertainty that give rise to a significant risk, the auditor considers how management has considered alternative assumptions or outcomes, and why it has rejected them, or how management has otherwise addressed estimation uncertainty in making the accounting estimate (refer to Section 3.7).

### ***3.6 Developing a Reasonable Range for an Accounting Estimate***

- The auditor may develop a reasonable range for the accounting estimate as a primary audit procedure or in combination with other procedures, as described in AU 342. There are a variety of complex accounting estimates where the results of the auditor’s procedures indicate a range of ‘reasonable’ accounting estimates,<sup>24</sup> which could exceed the auditor’s established materiality threshold. If the auditor concludes that it is appropriate to develop a range, the auditor narrows the range, based on available audit evidence, until all outcomes within the range are considered reasonable.
  - Narrowing the range to a point where all outcomes within the range may be considered reasonable is achieved by:
    - Eliminating from the range those outcomes at the extremities of the range judged by the auditor to be unlikely to occur; and
    - Continuing to narrow the range, based on audit evidence available, until the auditor concludes that all outcomes within the range are considered reasonable. In some rare cases, the auditor may be able to narrow the range until the audit evidence indicates a point estimate.<sup>25</sup>
- While a wide range may confirm that higher estimation uncertainty exists and may indicate that an accounting estimate contains a significant risk, this does not preclude the auditor, after performing sufficient appropriate procedures and obtaining sufficient appropriate evidence, from concluding that management’s accounting estimate is reasonable in accordance with the applicable financial reporting framework. Certain accounting estimates, based on their size

<sup>24</sup> As an example, ASC 275-10-50-15 identifies examples of estimates that are particularly sensitive to change in the near term, and thus could result in a range of “reasonable” accounting estimates.

<sup>25</sup> ISA 540, paragraph A95.

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

and/or subjectivity, may inherently have a relatively wide range of reasonableness. The auditor considers these situations; however, not all accounting estimates can be estimated within a range smaller than the auditor's established materiality threshold simply by performing additional procedures. An auditor's assessment of certain other factors could include the following:

- Assessing evidence of management bias or lack thereof;
- Assessing whether there were changes in the methodology used to develop the estimate and, if so, the reasons for that change. A change in the methodology can be an indicator of management bias. Similarly, a lack of a change in the methodology used to develop the accounting estimate, when facts and circumstances indicate that there should have been a change, could also be an indicator of management bias;
- Assessing whether there were changes in significant assumptions period over period without a triggering event;
- Evaluating the point within the reasonable range (e.g., high end vs. low end) at which the client's accounting estimate falls as compared to prior periods. Significant movement within the range may be an indicator of management bias;
- Evaluating whether management's assumptions are inconsistent with its peers and competitors (to the extent known by the auditor);
- Reviewing management's history of executing on its stated course of action and meeting its forecasts (e.g., budgeted operating cash flow) to evaluate the effectiveness of management's forecasting process;
- Evaluating whether the auditor is aware of contradictory evidence related to management's accounting estimate;
- Considering whether a specialist was used by management in developing its own accounting estimates and our assessment of the specialist's knowledge, skill, and objectivity;
- Evaluating the transparency of management's disclosures in the financial statements regarding the estimation uncertainty of the accounting estimate and how it was derived.
- The above considerations are not applied as a checklist. The importance of each is weighed according to the particular set of facts and circumstances and the related risk assessment of the accounting estimate.

### **3.7 Accounting Estimates with Significant Risks**

- After performing the risk assessment procedures discussed in section 2, the auditor may determine that an accounting estimate (or some component thereof) gives rise to a significant risk. When this determination is made, the auditor performs substantive procedures, including tests of details, that are specifically responsive to the risk of material misstatement. This is consistent with current requirements for significant risks in AS 13, paragraph 11.
- With respect to audit evidence for accounting estimates that give rise to significant risks, in addition to the requirements in AS 15, the auditor obtains sufficient appropriate audit evidence about whether the following are in accordance with the applicable financial reporting framework:

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

- Management's decision to recognize, or to not recognize, the accounting estimates in the financial statements; and
- The selected measurement basis for the accounting estimates.
  - For example, when auditing a complex fair value measurement that is determined using a discounted cash flow analysis that includes highly sensitive management judgments, an auditor may identify this as a significant risk and would likely perform additional procedures to gather evidence to support projections prepared by the company. Additional focus also may be placed on the selected discount rate to ensure it reflects the higher level of uncertainty in the projections.
- When an accounting estimate that has a high level of estimation uncertainty is assessed as a significant risk, the auditor performs substantive procedures to meet the requirements of AS 13. These include procedures to determine whether management has assessed how the estimation uncertainty impacts the accounting estimate and related disclosures.
- The auditor's procedures should consider whether management has appropriately addressed estimation uncertainty. Examples of how management addresses estimation uncertainty could include one or more of the following:
  - Considering alternative assumptions or outcomes, and, if so, why it has rejected them;
  - Performing sensitivity analyses for significant assumptions; or
  - Considering different valuation models.
- This is not intended to suggest that one particular method of addressing estimation uncertainty (such as sensitivity analysis) is more suitable than another, or that management's consideration of estimation uncertainty needs to be conducted through a detailed process supported by extensive documentation. Rather, it is how management has assessed estimation uncertainty in selecting the method(s) and developing the assumption(s) that is important.
  - For example, management may have documentation that supports the assumptions used, but does not explicitly list all other potential assumptions that were not used. In this case, the auditor would perform procedures to understand the process management went through when identifying the assumptions used and how management determined they were the most appropriate (i.e., how management determined not to use other assumptions).
  - Accordingly, where management has not considered alternative assumptions or outcomes, it may be necessary for the auditor to discuss with management, and request support for, how it has considered the effects of estimation uncertainty on the accounting estimate.
  - In addition, the auditor's procedures also could include evaluating:
    - Whether the significant assumptions used by management are reasonable;
    - Where relevant to the reasonableness of the significant assumptions used by management or the appropriate application of the applicable financial reporting framework, management's intent to carry out specific courses of action and its ability to do so; and

## **Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework**

- The adequacy of the disclosure of their estimation uncertainty in the financial statements in the context of the applicable financial reporting framework or regulatory disclosure requirements. The auditor’s evaluation of the adequacy of disclosure of estimation uncertainty increases in importance the greater the range of possible outcomes of the accounting estimate is in relation to materiality.

### **4 Using the Work of an Auditor’s Specialist**

- A specialist is a person with specialized knowledge or skill in a field of expertise other than accounting or auditing. Because income taxes and information technology, as they relate to the audit, are specialized areas of accounting and auditing, this definition should not apply to a person with specialized knowledge or skill in those areas.
- The auditor is not expected to have the expertise of a person trained for, or qualified to engage in, the practice of another profession or occupation.<sup>26</sup> During the audit, the auditor may encounter matters that, in the auditor’s judgment, require such specialized skill in the audit.
- The auditor’s determination of whether to use the work of a specialist in the audit is driven by the auditor’s risk assessment process, as described in section 2 above. This includes considering the complexity of the accounting estimate and its significance to the financial statements, as well as the knowledge, skill, and ability of the engagement team members.
- An auditor’s specialist is a specialist who performs work to assist the auditor in obtaining sufficient appropriate audit evidence. An auditor’s specialist may be either employed by the auditor (“auditor’s employed specialist”) or a third party engaged by the auditor (“auditor’s engaged specialist”).

#### **4.1 Evaluating the Knowledge, Skill, and Objectivity of an Auditor’s Specialist**

- If the auditor decides to use the work of an auditor’s specialist (whether engaged or employed), the auditor evaluates the knowledge, skill, and objectivity of the auditor’s specialist and supervises the auditor’s specialist’s activities. Based on this assessment, the auditor determines the nature, timing, and extent of the specialist’s involvement in the audit.
- The auditor should have sufficient knowledge of the subject matter to be addressed by the auditor’s specialist to enable the auditor to:
  - Communicate the objectives of that person’s work;
  - Determine whether that person’s procedures meet the auditor’s objectives; and
  - Evaluate the results of that person’s procedures as they relate to the nature, timing, and extent of other planned audit procedures and the effects on the auditor’s report.<sup>27</sup>
- As it relates to evaluating the knowledge and skill of an auditor’s specialist, the auditor should consider the following:

---

<sup>26</sup> AU 336, paragraph 6.

<sup>27</sup> Consistent with AS 9, paragraph 17.

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

- When a specialist is *engaged* by the auditor, the auditor performs an evaluation of the knowledge and skill of that auditor's engaged specialist in order to determine the reliability of the auditor's engaged specialist's work.
- Factors considered by the auditor include:
  - Whether the auditor's engaged specialist is subject to technical performance standards or other professional or industry requirements;
  - The auditor's engaged specialist's experience and professional reputation in the field relevant to the accounting estimate;
  - The auditor's engaged specialist's knowledge of and experience in the company's industry, when relevant to the accounting estimate;
  - The auditor's engaged specialist's competence in the matter for which the specialist's work will be used, including any areas of specialty within the specialist's field;<sup>28</sup> and
  - The auditor's engaged specialist's competence with respect to relevant accounting and auditing requirements.<sup>29</sup>
- When a specialist is *employed* by the auditor, the specialist is considered a member of the engagement team and is supervised in accordance with Auditing Standard No. 10, *Supervision of the Audit Engagement*.
  - Under Quality Control Section 20, *System of Quality Control for a CPA Firm's Accounting and Auditing Practice* (QC 20), an auditor's employed specialist is subject to the firm's overall system of quality control, which includes an evaluation of an employee's independence, integrity and objectivity, personnel management, engagement performance, and monitoring, among other things.
  - This system of quality control is intended to provide a firm with reasonable assurance that employees are independent (in fact and in appearance) in all required circumstances, perform all professional responsibilities with integrity, and maintain objectivity in discharging professional responsibilities.
  - QC 20 provides engagement teams that use the work of an employed specialist with the appropriate basis to evaluate an employed specialist's knowledge, skills, and objectivity. Accordingly, the auditor can determine that their employed specialist has sufficient knowledge, skill and objectivity by concluding that the employed specialist is subject to the firm's overall system of quality control.
- As it relates to evaluating the objectivity of an auditor's specialist, the auditor considers the following:
  - For an auditor's employed specialist, as discussed above, an audit firm's system of quality control provides the auditor with the appropriate basis to evaluate the objectivity of the specialist.

<sup>28</sup> For example, a particular actuary may specialize in property and casualty insurance, but have limited expertise regarding pension calculations.

<sup>29</sup> These requirements are consistent with those listed in the PCAOB's Staff Consultation Paper No. 2015-01, *The Auditor's Use of the Work of Specialists* (Specialists Staff Consultation Paper) and in ISA 620.

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

- An auditor's engaged specialist is not a part of the accounting firm's training, resource monitoring, or overall system of quality control. Accordingly, in evaluating the objectivity of an auditor's engaged specialist, the auditor views objectivity as a continuum that, based on the auditor's judgment, affects the nature, timing, and extent of the auditor's procedures and the reliability of the specialist's work as audit evidence. In evaluating the objectivity of an auditor's engaged specialist, the auditor:
  - Obtains information regarding business, employment, and financial relationships between the auditor's specialist and the company;
  - Determines, based on an evaluation of that information, whether there are any threats to the specialist's objectivity (e.g., due to an identified relationship between the specialist and the company); and
  - If threats to the specialist's objectivity are identified, the auditor evaluates the impact of the relationship on the nature timing and extent of the audit procedures, taking into consideration whether the relationship has a significant bearing on the ability of the specialist to perform his or her work objectively.
    - For example, as the auditor evaluates the objectivity of the auditor's engaged specialist along the continuum, the auditor may determine that there is a relationship between the company and the auditor's engaged specialist that may appear to impair the objectivity of the auditor's engaged specialist. In response, the auditor would perform additional procedures to further understand the relationship. The auditor also could perform additional procedures related to the estimate his or herself, such as further evaluation of the reasonableness of some or all of the assumptions, methods, or findings of the auditor's engaged specialist. If the auditor determines that the objectivity of the auditor's engaged specialist is impaired (e.g., the auditor's engaged specialist has prepared the company's valuation), the auditor would not use the work of that auditor's engaged specialist.

#### **4.2 Informing an Auditor's Specialist of His or Her Responsibilities**

- Communication (agreement) with the auditor's specialist, whether engaged or employed, is an important element in ensuring the sufficiency and appropriateness of the audit procedures performed. The auditor agrees, in writing, with the auditor's specialist about their responsibilities, which could include:
  - The responsibilities of the auditor's specialist, including: (1) the objectives of the work that the specialist is to perform; (2) the nature, timing, and extent of the work that the specialist is to perform; and (3) matters that could affect the work the specialist is to perform or the evaluation of that work, including relevant aspects of the company, its environment, and its internal control over financial reporting, and possible accounting and auditing issues related to areas in which the auditor plans to use the work of the specialist;

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

- When the work of the auditor’s specialist relates to an accounting estimate, whether the work of the specialist will assist the auditor in: (1) developing an independent estimate, including how the specialist’s work will use methods (which may include models) or significant assumptions; or (2) testing the methods and significant assumptions used by the company;
  - The nature of company-provided or third-party information to be used by the auditor’s specialist, including the source of the information and whether the specialist is responsible for performing work to assist the auditor in evaluating the: (1) accuracy and completeness of company-provided information; and/or the (2) relevance and reliability of third-party information;
  - Requirements of the applicable financial reporting framework that are relevant to the work of the auditor’s specialist;
  - The nature and extent of audit documentation the auditor’s specialist will provide and, if applicable, the form of report to be issued by the auditor’s specialist;
  - The nature, timing, and extent of communications between the engagement partner or other engagement team members performing supervisory activities and the auditor’s specialist, including any changes in the scope of the work of the specialist or any other changes to the matters addressed in the agreement; and
  - The importance of professional skepticism in an audit and the need to consider contradictory information.<sup>30</sup>
- In communicating the responsibilities of the auditor’s specialist, the auditor also includes confirmation of the auditor’s responsibilities that are relevant to the work being conducted by the auditor’s specialist.
- This agreement between the auditor and the auditor’s specialist can be evidenced in a memorandum or other relevant workpaper documentation in the audit workpapers.

### **4.3 Evaluating the Work of an Auditor’s Specialist**

- Once the auditor concludes that the auditor’s specialist is knowledgeable, capable, objective, and has reached an agreement regarding his or her responsibilities, the auditor evaluates the reasonableness of the specialist’s conclusions.
- The auditor’s evaluation of the work of an auditor’s specialist includes:
  - a) When the auditor’s specialist assists the auditor in developing an independent estimate or testing the methods and significant assumptions used by the company, evaluating the conclusions of the specialist about:
    - 1) The appropriateness of the methods including whether those methods are (1) in conformity with the applicable financial reporting framework, (2) generally accepted within the specialist’s field of expertise, and (3) applied consistently, including whether consistency is appropriate considering changes in the environment or circumstances affecting the company;

---

<sup>30</sup> These requirements are consistent with those listed in the Consultation Paper.

**Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework**

- 2) The relevance and reasonableness of the significant assumptions and methods in the circumstances, taking into account information presented in the report or documentation of the specialist, in view of the auditor's understanding of the company, its environment, and other evidence available to the auditor; and
  - 3) When testing the company's methods and significant assumptions, the basis for selecting the methods and assumptions used in developing the estimate, including whether the company considered alternative methods and assumptions.
- b) Determining whether the procedures performed and the results and conclusions of the specialist's work:
- 1) Support or contradict the relevant financial statement assertions or conclusions regarding the design or operating effectiveness of the company's controls;
  - 2) Are consistent or inconsistent with evidence obtained from other audit procedures performed;<sup>31</sup> and
  - 3) Are consistent or inconsistent with the work agreed upon between the auditor and auditor's specialist.
- c) In situations where the auditor believes that the results and conclusions of the specialist are not adequate for the auditor's purposes, the auditor agrees with the specialist on the nature and extent of further work to be performed by the auditor's specialist or perform additional audit procedures appropriate to the circumstances.<sup>32</sup>
- As an example, the conclusion of an auditor's specialist might indicate that the cash flow assumptions used by management in an impairment evaluation support management's conclusion that its goodwill balance is not impaired. However, if the output of the specialist's calculation indicates that the calculated implied fair value of a reporting unit approximates its carrying amount, the auditor may request that the specialist perform additional procedures (e.g., a sensitivity analysis) or the auditor may perform additional audit procedures appropriate to the circumstances.

## **5 Using the Work of the Company's Specialist**

- As noted in section 4 above, a specialist is a person with specialized knowledge or skill in a field of expertise other than accounting or auditing.
- A company's specialist is a specialist who performs work to assist the company in its preparation of the financial statements. A company's specialist may be either employed by the company ("company's employed specialist") or a third party engaged by the company ("company's engaged specialist").
- When the work of a company's specialist will be used as audit evidence for an accounting estimate, the auditor performs the procedures in the following sections in addition to

<sup>31</sup> These requirements are consistent with those listed in the Consultation Paper.

<sup>32</sup> Consistent with the requirements in ISA 620, paragraph 13.



***Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework***

performing risk assessment procedures, as discussed in section 2, and performs procedures to respond to the assessed risks of material misstatement, as discussed in section 3.

- As part of assessing a company's specialist, the auditor evaluates management's internal controls related to the accounts or components of accounts in which the specialist is involved, as discussed in section 3.1. The auditor also assesses the knowledge, skill and objectivity of the company's specialist and the work performed by the company's specialist, as discussed further below. The auditor may obtain information about the knowledge, skill, and objectivity of the company's specialist as part of the risk assessment procedures, when obtaining an understanding of management's process and identifying controls for testing, or through other means.

***5.1 Evaluating the Knowledge, Skill and Objectivity of a Company's Specialist***

- The auditor assesses the risks of material misstatement, and designs and implements audit responses that address the risks of material misstatement when using the work of a company's specialist.
- When evaluating the knowledge and skill of a company's specialist, an auditor considers, among other things:
  - Whether the company's specialist is subject to technical performance standards or other professional or industry requirements;
  - The company's specialist's experience and professional reputation in the field relevant to the accounting estimate;
  - The company's specialist's knowledge of and experience in the company's industry, where relevant to the accounting estimate;
  - The company's specialist's competence in the matter for which the specialist's work will be used, including any areas of specialty within the specialist's field; and
  - The company's specialist's competence with respect to relevant accounting and auditing requirements.
- Evaluating the degree of objectivity of a company's specialist should be viewed as a continuum that affects the nature timing and extent of audit procedures. An auditor considers, among other things:
  - Any interests and relationships that create threats to the specialist's objectivity, such as self-interest threats, advocacy threats, familiarity threats, self-review threats, intimidation threats, and any applicable safeguards, including any professional requirements that apply to the specialist, and evaluation of whether such safeguards are adequate;
  - Threats to a specialist's objectivity posed by an employment relationship and whether there is any direct reporting by the specialist;
  - The terms of the agreement to engage the specialist, including whether, and if so, how, the payment structure is tied to a particular outcome;
  - Whether management has the ability to dictate revisions to the specialist's results before finalization (with or without the agreement of the specialist);

## ***Appendix: Auditing Accounting Estimates and Fair Value Measurements: A Framework***

- The significance of the relationship between the engaged specialist and management (i.e., whether the specialist has an extensive relationship with management, and whether the fees charged by the specialist are material to the specialist); and
- The nature of other services provided by the specialist to the company.

### ***5.2 Evaluating the Work of a Company's Specialist***

- The nature, timing and extent of the auditor's procedures over the work of a company's specialist should be based on auditor's professional judgment, and responsive to the auditor's assessment of risk and the specific facts and circumstances of an audit engagement.
- In addition to those substantive procedures listed within section 3 above, when evaluating the adequacy of the work of the company's specialist, the auditor also:
  - Considers whether significant assumptions, inputs, and methods used to develop the estimate are dependent on the use of specialized models, and;
  - Focuses his or her efforts on the assumptions that are significant to the development of the estimate and consider management controls over the estimation process.

## ***6 Use of Third-Party Pricing Sources Not Acting as a Specialist***

- We agree with the distinction made in the Estimates Staff Consultation Paper that there are different types of third-party pricing sources, some of whom provide information "that is developed for, and widely available to, the public" and some of whom provide information "that is generated specifically for the auditor" or for management, and we agree with the staff that an approach in the potential new standard that could recognize some of these differences would be appropriate. Our comments in this area focus on the former.
- The relevance and reliability of evidence obtained from third-party pricing sources<sup>33</sup> should be evaluated for appropriateness under AS 15. For example, in general:
  - Evidence obtained from a knowledgeable source that is independent of the company is more reliable than evidence obtained only from internal company sources.
- Generally, third-party pricing sources are knowledgeable and provide independent pricing information that is free of influence from any one company and is broadly used by market participants (e.g., the same price is released to all customers, buyers and sellers, without bias).
  - Additionally, given that the pricing information provided by a third-party pricing source is used every day by market participants, and is subject to price challenges by these same market participants, there appears to be an element of monitoring inherent in the process.
- When auditors obtain independent pricing information from third-party pricing sources that is widely available for accounting estimates for which the auditor's risk assessment is determined to be of lower risk, the relevance and reliability of that information is evaluated to assess its appropriateness as audit evidence in accordance with AS 15.

---

<sup>33</sup> While this section focuses on the use of third-party pricing sources, our proposed framework could be applied to other third parties that possess skill or knowledge that is not accounting or auditing when they are not acting as a specialist.

***Appendix: Auditing Accounting Estimates and Fair Value Measurements:  
A Framework***

- When auditors obtain audit evidence from third-party pricing sources not acting as a specialist, tests for relevance and reliability could include:
  - Performing due diligence over the third-party pricing source's general methodology, including how outliers may be identified in a security group (e.g., setting a range to evaluate pricing differences outside of a reasonable range);
  - Obtaining an understanding of the pricing source's price-challenge process (e.g., the frequency of price challenges, the extent to which pricing challenges are affirmed);
  - Evaluating the competence and objectivity of the pricing source;
  - Considering the quality of the pricing source (e.g., its historical accuracy and level of experience);
  - Reviewing pricing data obtained and considering the information in relation to the financial instrument; and
  - Considering inconsistent observable market information regarding the pricing assertion (i.e., contradictory evidence).
- For securities selected for testing, when the auditor determines that the third-party pricing source's methods or assumptions reflect increased subjectivity or estimation uncertainty due to a higher risk assessment, in addition to the procedures listed above for accounting estimates of lower risk, additional procedures for relevance and reliability could include:
  - Comparing the reported price with evidence of a recent transaction for the security;
  - Comparing the reported price to other relevant observable market information; and
  - Assuming a lack of observable market information, determining the need to test management's process for determining fair value, including testing the valuation model, underlying data and the reasonableness of significant assumptions, or developing an independent estimate of the fair value of the securities selected for testing for corroborative purposes.

**From:** [Gk Chinoy](#)  
**To:** [Comments](#)  
**Subject:** Re: ACCOUNTING ESTIMATES AND FAIR VALUE MEASUREMENTS  
**Date:** Saturday, November 01, 2014 4:50:45 PM

---

Dear Sir/Ma'am:

As a retired CPA I wish to offer the following comments on the subject:

1. We have experienced accounting scandals in the U.S., the root causes of these are (a) greed-driven management decision-making, and (b) lax regulations
2. Each time the regulations are tightened the entrepreneurial management lobbyists \* fight tooth-and-nail, and seek relaxation on grounds of reviving the economy or some other pretext.
3. Or, when new or emerging issues, such as the subject, are considered, their \* tactics are the same.
4. As regards the current subject, we need to keep in mind past history when developing future regulations, and remember that entrepreneurial management will always find ways to skirt around the regulations.

Hence my suggestion is: consider inserting a clause in the proposed rules to hold them (entrepreneurial management) accountable for the consequences of their decision to use estimates and fair value measurements, regardless of disclaimers and caveats in disclosure notes, etc..

Best regards

Dr. G. K. Chinoy FCA CPA



November 3, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, D.C. 20006-2803

RE: Staff Consultation Paper: Auditing Accounting Estimates and Fair Value Measurements

Dear Office of the Secretary:

I am submitting the following comments to the PCAOB for consideration in response to a request for comments on the PCAOB's Staff Consultation Paper: *Auditing Accounting Estimates and Fair Value Measurements*. These comments represent my perspective as an institutional investor for a large public pension plan representing approximately 500,000 members and retirees and \$45 billion in assets.

As institutional investors, we recognize the value and importance of accounting estimates to accrual accounting; however, we also fully appreciate the challenges estimates cause to the creators, auditors, and users of financial statements. Unfortunately, when accrual accounting breaks down, poor accounting estimates are too often the culprit. We believe that the PCAOB can make a meaningful improvement in accounting estimates for all parties connected to financial statements, by the creation of more robust standards around the attestation of accounting estimates by audit firms.

We also appreciate the desire of auditors to maintain both autonomy in their audit practices and the ability to use professional judgment. However, we do not view PCAOB's proposed approach to strengthening auditing standards as overly prescriptive. What we do see is a strong proposal that outlines an appropriate framework that guides auditors to a level of auditing scrutiny that would make investors more comfortable with the auditing of accounting estimates.

When the final proposal is drafted, we support a new standard that is closely aligned yet distinctly separate from the risk assessment standards. We have always viewed the risk assessment standards as both an effective and efficient approach to setting audit standards. While we believe auditing estimates is critical and worthy of its own standards, aligning it with risk assessment standards seems prudent. Investors want auditors to spend their time efficiently, and to be efficient, auditors must first know where the biggest risk to material misstatements are located, and then appropriately plan and execute the audit around these high risk areas. This approach resonates well with us, and we believe it is the framework that should be used to develop standards for accounting estimates.

Office of the Secretary  
November 3, 2014  
Page 2

We would also like to see a stronger requirement for auditors to disclose details on their evaluation of management's estimates and judgments in the Critical Audit Matters report. Providing greater disclosure on the process of auditing estimates should help investors understand the level of scrutiny companies are receiving from their auditors. If there is too wide of a gap from what investors want from auditors and what they are receiving, better disclosure will help facilitate the conversation that can help close that gap. We believe there remains a significant expectation gap that needs to be closed through better disclosure and more robust auditing practices.

We also have some concern regarding the experience of staff auditing complex accounting estimates. Auditing accounting estimates is a challenging task for auditors and work that we hope is being conducted by knowledgeable and experienced professionals. We would also like to raise the issue of estimates being audited with reliance on management's inputs for testing. As investors and auditors are well aware, inputs are critical in addition to the importance of the model itself. We see value in auditors seeking independent inputs in addition to management's inputs. We believe the experience of auditing staff and the breadth of auditing estimates are valuable issues for PCAOB consideration.

We appreciate the PCAOB for giving us the opportunity to comment on potential changes on accounting estimate standards, and would welcome additional opportunities to provide input to the PCAOB as this process continues.

Sincerely,



Jennifer Paquette  
Chief Investment Officer  
Colorado PERA



## Investor Perspectives & Related Considerations on Auditing Estimates and Fair Value Measurements: Remarks at the Meeting of the Standing Advisory Group of the Public Company Accounting Oversight Board

Jeff Mahoney  
General Counsel  
Council of Institutional Investors

Oct. 2, 2014

### Introduction

Good morning. Thank you for the invitation to appear on this panel.

As a representative of institutional investors, I am concerned about the Public Company Accounting Oversight Board's ("PCAOB") observation in the Staff Consultation Paper that there are "significant audit deficiencies" in audits of accounting estimates and fair value measurements.<sup>1</sup> My concern is heightened by at least two factors.

### Fair Value Accounting

First, I believe fair value accounting with robust disclosures provides investors with more useful information than amounts that would be reported under amortized cost or other alternative accounting approaches. In 2008, during the height of the financial crisis, the Council of Institutional Investors ("Council") commissioned a white paper to educate our members, policymakers and the general public about fair value accounting and its potential impact on investors.<sup>2</sup>

The white paper, issued in July of 2008, was authored by Stephen G. Ryan, KPMG faculty fellow, professor of accounting, and director of the accounting doctoral program, at the Leonard N. Stern School of Business at New York University.<sup>3</sup> In that paper, Professor Ryan concluded that fair value accounting benefits investors for a variety of reasons:

It requires or permits companies to report amounts that are more accurate, timely, and comparable than the amounts that would be reported under existing alternative accounting approaches, even during extreme market conditions;

---

<sup>1</sup> Public Company Accounting Oversight Board, Staff Consultation Paper, Auditing Accounting Estimates and Fair Value Measurements 3 (Aug. 19, 2014), [http://pcaobus.org/Standards/Documents/SCP\\_Auditing\\_Accounting\\_Estimates\\_Fair\\_Value\\_Measurements.pdf](http://pcaobus.org/Standards/Documents/SCP_Auditing_Accounting_Estimates_Fair_Value_Measurements.pdf).

<sup>2</sup> Stephen G. Ryan, Fair Value Accounting: Understanding the Issues Raised by the Credit Crunch (July 2008), [http://www.cii.org/files/publications/white\\_papers/07\\_11\\_08\\_fair\\_value\\_accounting.pdf](http://www.cii.org/files/publications/white_papers/07_11_08_fair_value_accounting.pdf).

<sup>3</sup> *Id.*

It requires or permits companies to report amounts that are updated on a regular and ongoing basis;

It can limit companies' ability to manipulate their net income because gains and losses on assets are reported in the period they occur, not when they are realized as the result of a transaction; and

Gains and losses resulting from changes in fair value estimates indicate real economic events that companies and investors often find worthy of additional disclosures and other information.<sup>4</sup>

In October of 2008, following the release of the white paper, the Council issued a joint statement with the CFA Institute and the Center for Audit Quality.<sup>5</sup> The statement opposed efforts under way at the time by financial institutions and their allies to force the U.S. Securities and Exchange Commission ("SEC") to suspend the use of fair value accounting for certain companies.<sup>6</sup>

The joint statement generally adopted the views contained in the Council white paper and concluded that "[s]uspending fair value accounting during these challenging times would deprive investors of critical financial information when it is needed most."<sup>7</sup> In the years since the statement was issued, the Council's position on fair value accounting has not changed.

## Testing and Evaluation of Accounting Estimates

A second factor that heightens my concern about the significant audit deficiencies that the PCAOB staff has identified is that investors appear to assign a high value to the auditor's testing and evaluation of accounting estimates. I believe that view is demonstrated by the broad support the PCAOB has received from investors for pursuing improvements to the auditor's report that would include the auditor's assessments or insights on management's critical accounting estimates and judgments.<sup>8</sup>

For example, 79 percent of institutional investors responding to a survey by the PCAOB's own Investor Advisory Group expressed the belief that the auditor's report should discuss the auditor's assessment of the accuracy of management's "significant estimates and judgments."<sup>9</sup>

---

<sup>4</sup> *Id.* at 1.

<sup>5</sup> Press Release, Joint Statement of the Center for Audit Quality, The Council of Institutional Investors and The CFA Institute Opposing Suspension of Mark-to-Market Accounting 1 (Oct. 1, 2008), <http://www.thecaq.org/newsroom/2008/10/01/joint-statement-of-the-center-for-audit-quality-the-council-of-institutional-investors-and-the-cfa-institute-opposing-suspension-of-mark-to-market-accounting>.

<sup>6</sup> See, e.g., Arthur Levitt, Jr. & Lynn Turner, Op-Ed., *How to Restore Trust in Wall Street*, Wall St. J., Sept. 26, 2008, at 1, <http://online.wsj.com/articles/SB122238715655877159>.

<sup>7</sup> Press Release at 1.

<sup>8</sup> See, e.g., Proposed Auditing Standards, The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion, PCAOB Release No. 2013-005, at 14 (Aug. 13, 2013), [http://pcaobus.org/Rules/Rulemaking/Docket034/Release\\_2013-005\\_ARM.pdf](http://pcaobus.org/Rules/Rulemaking/Docket034/Release_2013-005_ARM.pdf).

<sup>9</sup> Investor Advisory Group, Improving the Auditor's Report 20 (Mar. 16, 2011), [http://pcaobus.org/News/Events/Documents/03162011\\_IAGMeeting/Role\\_Of\\_The\\_Auditor.pdf](http://pcaobus.org/News/Events/Documents/03162011_IAGMeeting/Role_Of_The_Auditor.pdf).



As an aside, I would note that KPMG UK's recent auditor's report for Rolls-Royce Holdings is generally responsive to that investor demand.<sup>10</sup> I remain hopeful that over time the auditing profession in the United States will come to realize that it is in its best interest, financial and otherwise, to improve the auditor's report in a like manner.

## Conclusion

For the reasons stated, if it is the PCAOB's judgment that significant audit deficiencies identified in the staff paper can be reduced by improving the standards relating to auditing accounting estimates and fair value measurements, I am confident that many, if not most, institutional investors would support such a project.

Finally, I would like to conclude my prepared remarks by commenting on my fellow panelist Thomas I. Selling's interesting recommendation on experimenting with "an independent appraisal of all assets . . ."<sup>11</sup> On that topic, I would just echo the concerns raised by former SEC Chief Accountant Paul Beswick.

Chief Accountant Beswick, on more than one occasion, expressed the view that the ability of the valuation industry to fully serve auditors and investors is inhibited by the industry's inability to-date to become a true profession.<sup>12</sup> More specifically, he suggested that, as a starting point, the valuation industry should establish a single set of qualifications with respect to:

- Education level and work experience,
- Continuing education,
- Standards of practice and ethics, and
- A code of conduct.<sup>13</sup>

With that final comment, thank you again for inviting me to participate on this panel and for your kind attention.

---

<sup>10</sup> Rolls-Royce Holdings plc, Annual Report 130 & 132 (2013), [http://www.rolls-royce.com/reports/2013/assets/pdf/RR\\_Full%20Annual%20Report\\_smallest.pdf](http://www.rolls-royce.com/reports/2013/assets/pdf/RR_Full%20Annual%20Report_smallest.pdf); see, e.g., Floyd Norris, *Holding Auditors Accountable on Reports* 1-5, N.Y. Times, May 8, 2014, at 1-5, [http://www.nytimes.com/2014/05/09/business/holding-auditors-accountable.html?\\_r=0](http://www.nytimes.com/2014/05/09/business/holding-auditors-accountable.html?_r=0).

<sup>11</sup> Thomas I. Selling, *Auditing Estimates and Fair Values: Investor Perspectives & Related Considerations* 9 (Oct. 2, 2014), [http://pcaobus.org/News/Events/Documents/10022014\\_SAG/Selling\\_Slides.pdf](http://pcaobus.org/News/Events/Documents/10022014_SAG/Selling_Slides.pdf).

<sup>12</sup> See Paul Beswick, Chief Accountant, Office of Chief Accountant, U.S. Securities and Exchange Commission, Remarks at the AICPA 2013 Conference on Current SEC and PCAOB Developments 3 (Dec. 9, 2013), [http://www.sec.gov/News/Speech/Detail/Speech/1370540488257#.VDLjc\\_ldW7w](http://www.sec.gov/News/Speech/Detail/Speech/1370540488257#.VDLjc_ldW7w); Paul A. Beswick, Deputy Chief Accountant, Office of the Chief Accountant, Securities and Exchange Commission, Prepared Remarks for the 2011 AICPA National Conference on SEC and PCAOB Developments 5 (Dec. 5, 2011), <http://www.sec.gov/news/speech/2011/spch120511pab.htm> [hereinafter Beswick 2011 Speech].

<sup>13</sup> Beswick 2011 Speech, *supra* note 12, at 5.

**Crowe Horwath LLP**

Independent Member Crowe Horwath International

3815 River Crossing Parkway, Suite 300

Post Office Box 40977

Indianapolis, Indiana 46240-0977

Tel 317.569.8989

Fax 317.706.2660

[www.crowehorwath.com](http://www.crowehorwath.com)

November 3, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

RE: PCAOB Staff Consultation Paper—*Auditing Accounting Estimates and Fair Value Measurements*

Office of the Secretary:

Crowe Horwath LLP appreciates the opportunity to comment on the Public Company Accounting Oversight Board's Staff Consultation Paper—*Auditing Accounting Estimates and Fair Value Measurements* (Consultation Paper).

We support the Board's efforts to improve audit quality by enhancing existing auditing standards, and to provide additional information to investors for decision-making. We also agree that changes to existing auditing standards for accounting estimates and fair value measurements would be helpful to clarify the requirements currently in multiple PCAOB auditing standards. We are pleased to provide our observations regarding the potential revisions to PCAOB auditing standards addressed in the Consultation Paper.

Our observations below address, among other matters, potential changes to audit standards that would require the auditor to test information provided by the company's specialist as if it were produced by the company. We are particularly concerned that such a requirement could significantly increase audit effort, particularly for complex estimates for which auditors would often need to engage their own specialists. This requirement would not take full advantage of the audit evidence provided by the company's specialists, when such specialists are found to be competent and sufficiently objective and for which the auditor is able to understand and evaluate the company specialists' methods, assumptions and findings.

Page 15—Question #2, Supervision by the engagement partner

We support supervision of an audit firm's national-level pricing desk by an engagement partner that has asked the pricing desk to perform audit procedures. Specifically, we recommend requiring the engagement partner to understand the audit procedures performed by the pricing desk and the results thereof. Inclusion of the supporting working papers prepared by the pricing desk in the respective audit files will facilitate and assist in documenting this understanding. However, due to the specialized nature of certain of the audit procedures performed by the pricing desk, we support a level of supervision by the engagement partner that does not require the same level of detailed knowledge and experience as the specialists directly performing and supervising the pricing desk procedures.

Pages 23, 24—Understanding the processes used to develop accounting estimates

The Consultation Paper indicates that AS No. 12 may be amended to emphasize that the auditor, as part of understanding internal control over financial reporting, should understand the company's methods, data, assumptions, and use of third parties in developing accounting estimates. When developing amendments to AS No. 12 that address the use of third parties, we recommend clarifying the extent of the required understanding and testing of the methods and assumptions used to develop accounting estimates. The auditor's ability to gain such information from third parties may be limited. Additionally, without such clarification, auditors may interpret this language as requiring evaluation and testing of the internal controls of the third party.

Page 32—Evaluation of the acceptability of the company's methods within the company's industry

We recommend that future auditing standards indicate that the auditor should consider whether to evaluate the acceptability of the company's methods for determining accounting methods within the company's industry, but not require such evaluations. It is not clear in the Consultation Paper how the auditor would determine that such methods are acceptable within the company's industry. The auditor would also not be able to determine the underlying facts and circumstances for use of particular accounting methods by other companies, further making an assessment of acceptability more difficult. In addition, accounting standard setters have moved, in some areas, to a principles based model, which is less prescriptive and allows for significant judgment and different methods in some situations.

Page 37—Evaluating the consistency of identified significant assumptions

The Consultation Paper lists certain requirements when evaluating significant assumptions. The items required to be evaluated for each significant assumption, indicated by items a. through e., are likely to vary in importance to the auditor's evaluation of the significant assumption, potentially resulting in unnecessary audit procedures and documentation. We recommend that future auditing standards allow the auditor to exercise judgment when determining the extent to which the specified items will be considered in the evaluation of significant assumptions.

Pages 37, 38—Reliance on specialists

As the complexity of accounting estimates increases, the need to rely on specialists becomes increasingly important to obtaining sufficient audit evidence. Examples where reliance on specialists is important may include specialists that determine levels of completion for large construction projects, specialists who calculate fair values for complex derivative instruments, and specialists who calculate estimates of environmental contingencies. PCAOB Auditing Standard AU 336 provides relevant guidance regarding an auditor's reliance on specialists, whether these specialists are engaged or employed by the company or by the auditor.

The Consultation Paper indicates that future auditing standards may require the auditor to test information provided by the company's specialist as if it were produced by the company. Such a standard could require an auditor to evaluate the methods and test the assumptions utilized by the company's specialist. For particularly complex estimates that require specialized knowledge, experience and tools, this requirement would often cause the auditor to engage a specialist instead of relying on the company's specialist. Potential difficulties in obtaining sufficient audit evidence under such requirements include:

- The company specialist's methods and assumptions may not be available to the auditor, for example due to the proprietary nature of the information;
- If the auditor attempts to engage a specialist, a very limited number of specialists may be available that are capable of determining such estimates (An example is an appraiser who is experienced in unique type of real estate in a particular geographic area.), and

- Such estimates from auditor-engaged specialists could be very costly to obtain, as compared to placing reliance on audit evidence from company specialists who are found to be competent and objective, and for which the auditor is able to understand and evaluate the company specialists' methods, assumptions and findings.

It is particularly important in situations involving complex estimates to be able to use the work of the company's specialist, subject to the requirements of AU 336 that requires determining the competence and objectivity of the specialist, obtaining an understanding of the methods and assumptions utilized by the specialist, and making appropriate tests of the data provided to the specialist. Further, the Consultation Paper is not clear as to the impact on the audit, if any, of the auditor's evaluation of the competence and objectivity of company specialists if the auditor is required to test information provided by company specialists as if they were produced by the company. We encourage development of auditing standards that, similar to AU 336, clarify the ability of the auditor to rely on both auditor and company specialists when testing accounting estimates.

Further, we recommend that future standards also clarify when reliance on a specialist by the auditor is appropriate. AU 336 indicates that the auditor may encounter complex or subjective matters potentially material to the financial statements, and that such matters may require special skill or knowledge, requiring the auditor to use the work of a specialist to obtain appropriate evidential matter. Examples of the types of matters that the auditor may decide require him or her to consider using the work of a specialist are included in AU 336. The language in AU 336 may not be sufficient to allow consistent conclusions as to when use of a specialist is appropriate.

#### Page 40—Auditor's responsibility for evaluating accounting estimates

The Consultation Paper indicates that a potential new standard could emphasize the auditor's responsibility to take into account all information relevant to the accounting estimate. This implies that the auditor would be required to perform audit procedures for all information relevant to an accounting estimate, which would be difficult to define and to limit. As a result, audit procedures may be performed that are not important to the auditor's evaluation. For example, the information relevant to an estimate of fair value for commercial real estate would include many factors, only a portion of which would have a reasonable chance of significantly impacting the fair value estimate. We recommend that a potential new standard allow the auditor to exercise judgment in determining the information to be considered when evaluating an accounting estimate.

#### Pages 40, 45—Testing of a third party's methods, data and assumptions

The Consultation Paper indicates that future auditing standards may require the auditor to evaluate the significance and reliability of data and assumptions from a third party and used in developing an accounting estimate. The Consultation Paper indicates that there may be limitations in testing data obtained from third-party sources for completeness and accuracy, with which we concur. Such limitations could include the inability to obtain the methods, data and assumptions from the third party due to the availability or proprietary nature of such information. We recommend that future standards consider such limitations as well as allow the auditor to consider the experience, expertise and objectivity of the third party and the risk of misstatement when planning the nature and extent of testing. Further, we believe it is important for future standards to be responsive to the wide range of risks that are inherent for various accounting estimates. For example, fair value estimates that are based on trading activity or assumptions derived from observable market conditions will often represent lower audit risk, which may allow the auditor to substantiate fair value estimates using simple audit procedures for lower risk estimates that don't involve detailed evaluation of the methods and assumptions underlying the estimates.

Further, we suggest that future standards differentiate sources of information that are widely accepted as containing factual information regarding estimates from those that apply various methods and assumptions in determining an estimate. For example, we recommend that future auditing standards support audit reliance on transactional information for various securities available from sources such as MSRB's EMMA, FINRA's TRACE and data-feeds from various exchanges.

We also recommend that as future audit standards are prepared addressing the requirements for testing complex estimates that are inherently imprecise, consideration be given to the level of audit precision that is reasonable for such estimates. The precision of an auditor's test of such complex estimates is inherently limited by the nature of the estimate, including its complexity, subjectivity and precision. Accordingly, an imprecise calculation or one that has a significant range of outcomes cannot be overcome by simply applying more audit procedures.

\* \* \* \* \*

Crowe Horwath LLP supports the Board's efforts to improve its auditing standards for the benefit of investors and other stakeholders. We appreciate the opportunity to comment on the potential revisions to PCAOB auditing standards, and would be pleased to respond to any questions regarding the comments we have provided. Should you have any questions please contact Clarence Ebersole at (317)706-2636, Mike Yates at (574)236-7644 or James Dolinar at (630)574-1649.

Sincerely,

*Crowe Horwath LLP*

Crowe Horwath LLP



Deloitte & Touche LLP  
30 Rockefeller Plaza  
New York, New York 10112  
USA

[www.deloitte.com](http://www.deloitte.com)

November 3, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Re: Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements***

Deloitte & Touche LLP (“D&T”) is pleased to respond to the request for comments from the Public Company Accounting Oversight Board (the “PCAOB” or the “Board”) on its *Staff Consultation Paper — Auditing Accounting Estimates and Fair Value Measurements* (the “consultation paper” or the “paper”), which addresses potential changes to various auditing standards (specifically, PCAOB AU 342, *Auditing Accounting Estimates* (PCAOB AU 342), PCAOB AU 328, *Auditing Fair Value Measurements and Disclosures* (PCAOB AU 328), and certain aspects or all of PCAOB AU 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (PCAOB AU 332)).

We support the Board’s efforts to evaluate whether the existing PCAOB auditing standards relating to auditing accounting estimates and fair value measurements<sup>1</sup> can and should be improved. We note the Board’s substantive efforts in this area to date and are appreciative of the PCAOB Staff’s efforts to seek further input through the issuance of the consultation paper. We also commend the PCAOB Staff for organizing a special meeting of the Standing Advisory Group (“SAG Meeting”) to discuss matters relevant to the consultation paper and to hear input from a variety of stakeholders. In this letter, we present our overall views regarding the topics outlined in the consultation paper, including the suggested changes to the related auditing standards presented therein. We have also included more granular observations and suggestions that are responsive to certain of the more detailed questions posed in the consultation paper in Appendix A.

## BACKGROUND

---

We agree with the PCAOB Staff that the auditing of accounting estimates, and in particular, fair value measurements, is challenging. We also acknowledge that these are areas in which audit deficiencies occur. As indicated in the consultation paper, and as discussed further at the SAG Meeting, the PCAOB’s inspection findings and those of other audit regulators or audit oversight bodies continue to include a high number of audit deficiencies related to the auditing of accounting estimates, and in particular, fair value measurements.

---

<sup>1</sup> Throughout this letter, and unless otherwise clear from the context of the discussion, use of the term “accounting estimates” may be read to also include “fair value measurements.” Our approach is consistent with the approach used by the PCAOB in the consultation paper (see footnote 1 on page 3 of the consultation paper).

In connection with these inspection findings, we believe it is important that the underlying causal factors for the findings are fully analyzed and understood (e.g., such causal factors likely include matters such as failure to make appropriate professional judgments and exercise sufficient professional skepticism; insufficient levels of skill, knowledge, or experience of engagement partners and team members (especially for complex estimates); failure to use or ineffective involvement of suitably qualified auditor specialists; insufficient time to properly complete procedures because issuers are challenged to prepare all the necessary information in relatively short time frames driven by filing deadlines; and over-reliance on the involvement of management or auditor specialists). In addition, some of the challenges faced by auditors today are related to situations that are not directly addressed in the extant standards, making it challenging for auditors to determine the appropriate course of action. In making revisions to its auditing standards, we believe it is important for the PCAOB to assess which of the identified causal factors can be effectively addressed through amendments to the auditing standards, and if so how.

We also note and concur with the commentary in the consultation paper about the increasing complexity in the financial reporting frameworks and the many changes in recent years that have resulted in increased use of fair value measurements. We believe such complexity is a significant factor that contributes to the auditing challenges. As discussed further below, the manner in which issuers establish fair values for financial reporting purposes is a matter of significant and growing attention from investors and other stakeholders. Issuers are being pressured to provide high quality fair value measurements that are consistent, well supported, and capable of being audited.

We agree that when auditing accounting estimates, auditors should subject the related significant assumptions, methods used, and underlying data to auditing procedures. However, we do not believe that it is possible, or practical for the same approach to be used for auditing all accounting estimates because not all estimates involve the same level of complexity or the same level of subjectivity in their determination. Differences and challenges also arise depending on the extent to which management uses information provided by a specialist or a third-party information provider, and the extent to which such specialists or third-party information providers will provide access to the information they have developed or visibility into the proprietary processes that they use to develop the information. To assist auditors in improving audit quality, it is necessary for the PCAOB to consider and address these differences and challenges when developing a potential new standard. It is important that the PCAOB's approach be based upon the foundation that "not all accounting estimates are equal" and for revisions to the standards to have the objective of resulting in a framework that is sufficiently flexible so that it can be applied when auditing the wide range of accounting estimates that exist today, as well as those that will exist in the future as the applicable financial reporting frameworks continue to evolve. The more prescriptive the requirements in the auditing standards for addressing accounting estimates, the more challenging it will be for auditors to apply such requirements to different types of estimates in a reasonable manner, and the less likely that the needs of investors will be well served. In our comments below, we expand on the challenges that arise and provide suggestions as to how they may be addressed.

As a general principle, amendments to the auditing standards alone will not be effective in addressing all the causal factors, improving audit quality, and protecting the interests of investors, especially if the changes set expectations for auditors that cannot reasonably be accomplished. An auditor's ability to effectively address the requirements of auditing standards is premised upon the extent to which the corresponding requirements for management or preparers are also clearly established and

communicated, as they relate to both the preparation of financial statements and the maintenance of effective internal control over financial reporting. We therefore encourage the PCAOB to take action and work with others (including the SEC and the FASB) to develop and implement an integrated set of improvements that holistically address the underlying issues identified in the consultation paper. We commend the PCAOB for raising these issues to the forefront and demonstrating leadership in the pursuit of actions to enhance the quality of information provided to the investing public.

## OVERALL COMMENTS

---

*Need for Holistic Approach.* We acknowledge the auditing challenges related to accounting estimates, including fair value measurements and we note that these challenges also extend to the testing of management's controls over accounting estimates, including controls management should have in place when specialists or third parties are involved in developing accounting estimates. The issues related to accounting estimates and fair value measurements do not however stop with auditing matters. Many of the issues faced by auditors in determining how to audit accounting estimates (in particular complex fair value measurements), and how to test the related controls are similar to the challenges faced by management in not only interpreting and applying the requirements of the applicable financial reporting framework in developing accounting estimates, but also in designing and implementing the necessary financial reporting processes and controls to support the recognition, measurement, and disclosure in the issuer's financial statements.

We also recognize investor concerns and the calls for increased transparency into accounting estimates, in particular fair value measurements. Some of these matters were discussed at the recent SAG Meeting.<sup>2</sup> Investors have expressed their views that fair value accounting accompanied with robust disclosures provides them with the best information to make decisions; however, we note investor concerns about the lack of robust and transparent disclosures related to accounting estimates that involve significant inputs and assumptions (including whether or not they are developed by a third party.) Investors' interests and concerns appear to extend to all accounting estimates, and are not just limited to fair value measurements. We understand that investors assign high value to the testing performed by auditors of accounting estimates and fair value measurements and accordingly, high quality auditing standards that are capable of being consistently and effectively implemented by auditors are a key aspect of protecting the interests of investors in this regard.

Measurement uncertainty associated with accounting estimates should be a focus of management in preparing financial statement disclosures, and auditors should be required to specifically assess the adequacy of such disclosures. The requirements of the applicable financial reporting framework however provide the framework for an auditor's assessment of the adequacy of an issuer's disclosures. As such, we believe that the concerns of investors and calls for more information and increased transparency into accounting estimates through robust disclosures are best addressed firstly through amendments to the applicable financial reporting frameworks or in the rules addressing the information required to be included in annual and periodic reports that issuers are required to file in accordance with the Securities and Exchange Commission's rules and regulations,<sup>3</sup> that is, as opposed

---

<sup>2</sup> In particular, refer to the remarks made by Sandra Peters, CFA Institute and Jeff Mahoney, Council of Institutional Investors at the SAG Meeting.

<sup>3</sup> To the extent such expanded or additional disclosures become part of the financial reporting framework, and are included in the financial statements, they will of course be subject to the audit of the financial statements and would



to establishing requirements for auditors that are not supported by corresponding requirements in the financial reporting frameworks. The accounting standard setters and regulators therefore also have important roles to play in addressing the challenges related to accounting estimates and fair value measurements and protecting interests of investors.

The interconnected roles and responsibilities of all such financial reporting supply chain participants provides important context for PCAOB standard setting, and as reiterated in various places in this letter, we believe strongly that care needs to be taken such that the auditing standards do not set forth requirements for auditors that extend beyond the related expectations or requirements for management (i.e., avoid the situation that the requirements of the auditing standards become “de facto” requirements for management).

In particular as it relates to accounting estimates and also as mentioned above, it is critically important to understand the roles of specialists and third-party information providers, including the variety of ways in which management uses information provided by such parties in developing the wide range of accounting estimates that exist. We appreciate the concerns about how the underlying information is verified or audited, however some estimates, especially fair value estimates, cannot reasonably be expected to be prepared by management without the assistance from third parties. When management involves third parties, appropriate processes for using the third parties need to exist and the processes and related controls must be subject to audit; however, approaches need to be developed to accomplish this objective in a rational manner.

Given this backdrop, we believe the interests of investors and other stakeholders will be best served by a holistic approach involving a coordinated effort that encompasses a careful but pragmatic examination of the respective roles and responsibilities of all participants in the financial reporting supply chain (including management, auditors, specialists, third-party information providers, accounting standard setters, and regulators), and which involves developing and implementing solutions that can reasonably be expected to be implemented and that will meet the needs of investors and other stakeholders.

*Consideration of Alternative Approaches and Recommendation for a Single Standard to Address Accounting Estimates and Fair Value Measurements.* We are generally supportive of the PCAOB’s proposal to develop a single standard on auditing accounting estimates and fair value measurements to replace the existing standards. We also agree with the PCAOB’s stated intent that a new potential standard achieves better integration and alignment with the PCAOB’s risk assessment standards, and that the standard retain the approaches in the existing standards for performing substantive procedures.

Because different accounting estimates have different levels of complexity and risk, and there are different requirements established by the applicable financial reporting frameworks as they relate to the recognition, measurement, and disclosure of different types of estimates, we believe the PCAOB should focus on developing a single principles-based standard that contains a framework that is (i) based upon the PCAOB’s risk assessment standards and (ii) capable of being adapted and applied to the specific facts and circumstances that will arise for each different type of accounting estimate. This framework should

---

also be required to be encompassed within the issuer’s and auditor’s assessments of internal control over financial reporting.

have the objective of focusing the auditor on first obtaining an understanding of management's process and controls and identifying the areas of complexity or sensitivity, thereby enabling the auditor to build a tailored approach to properly assess the related risks of material misstatement, to challenge and evaluate the inputs and output of the estimate and to test the relevant controls. Once the overall framework is established, it could be supplemented by additional and more detailed requirements for particular types of estimates or situations, as considered necessary (e.g., potentially additional requirements relating to the auditing of financial instruments or other fair value measurements and the approach to addressing situations in which investments are valued based on information provided by third parties).

**Focus on Internal Control and Consideration of Risks of Material Misstatement Due to Fraud.** The consultation paper touches briefly upon consideration and testing of relevant controls and identifying and responding to risks of material misstatement due to fraud in relation to auditing accounting estimates. A potential new standard should focus on providing additional clarity and expanded guidance in these areas, building on the framework in the risk assessment standards, and PCAOB AS 5, *An Audit of Internal Control over Financial Reporting that is Integrated with an Audit of Financial Statements* (PCAOB AS 5). Testing relevant controls can be particularly challenging given the nature of the controls that typically address management estimates (i.e., relevant controls are often complex management review-type controls). It is also important that a potential new standard places appropriate emphasis on identifying and responding to the potentially heightened risk of fraud in management estimates that often arises due to their complexity and the subjectivity involved in developing them.

**Linkage with Use of Specialists and Third-Party Information Providers.** As mentioned above, and discussed in more detail below, there is a high degree of interconnectivity between the issues relating to auditing accounting estimates and use of specialists (including management specialists and auditor specialists) and third-party information providers. We realize that the PCAOB has acknowledged such linkage, and is planning to issue a separate consultation paper addressing specialists. We strongly recommend that the PCAOB address the topics of accounting estimates and specialists together, and that the revisions to the PCAOB's auditing standards be developed in tandem. In this way, commenters on the resulting proposed standards will have the opportunity to assess and understand the collective impact of the changes being proposed, and will be better placed to provide constructive commentary to the PCAOB, thereby facilitating amendments to the final standards to also be considered in combination. It will also be important that the final standards become effective at the same time.

**Starting Point and Consideration of Work of Other Auditing Standard Setters.** As identified by the PCAOB in the consultation paper, both the International Auditing and Assurance Standards Board (IAASB) and the AICPA's Auditing Standards Board (ASB) have completed projects to overhaul their standards addressing accounting estimates (including fair value measurements); both of which projects resulted in the development of a single standard that are substantially similar to one another (ISA 540 and AU-C 540). We believe that IAASB and ASB standards are a good starting point for a potential new standard addressing accounting estimates. Additionally, in connection with our suggestion above to address use of specialists at the same time as accounting estimates, we note that the IAASB and ASB have placed the requirements for use of auditor specialists and use of management specialists in separate standards.<sup>4</sup> We

<sup>4</sup>

The requirements and guidance relating to use of specialists by an auditor are addressed in the IAASB's ISA 620, *Using the Work of an Auditor's Expert*, and management's use of specialists are addressed in ISA 500, *Audit Evidence*. The ASB's analogous standards are AU-C 620, *Using the Work of an Auditor's Specialist*, and AU-C 500,

are supportive of this approach as it creates additional clarity for each situation, as well as setting forth an appropriate framework for each. In particular, including the requirements for evaluating management's use of specialists and third-party information providers in PCAOB AS 15, *Audit Evidence*, (PCAOB AS 15) would appropriately provide for the auditor's evaluation of such situations being based on the foundational principle of whether the information provided by the specialist or the third-party information provider constitutes sufficient appropriate audit evidence (which would include evaluating the relevance and reliability of the evidence relative to the context in which it is used).

**Need for Practical Implementation Guidance and Possible Approach for Its Development.** We note, and are supportive of the PCAOB's prior efforts to obtain insights into the issues relating to the auditing of fair value of financial instruments through its establishment of the Pricing Sources Task Force in 2011.<sup>5</sup> We believe the effectiveness of a single principles-based accounting estimates standard and the consistency of its application by auditors would be vastly improved if comprehensive implementation guidance were developed to support its application by auditors. Such implementation guidance might demonstrate how the framework could be applied to many different types of estimates of varying degrees of complexity and measurement uncertainty (including fair value estimates and other accounting estimates) and could focus for example, on estimates that are the subject of widespread inspection findings and on unusual new accounting estimates that may arise as a result of revisions to the accounting standards. Additionally, implementation guidance might also address examples of situations in which management uses a specialist or information provided by a third party in developing the estimate, as well when the auditor uses information provided by a third party in developing an independent estimate. The implementation guidance may also provide additional perspectives as to how to use the output of a centralized approach to address information developed by third-party information providers (see comments below for more details on our recommendations in this regard).

To this end, auditors, preparers, specialists, and third-party information providers (including but not necessarily limited to pricing services) could work effectively and productively together to develop implementation guidance based on the framework and requirements established by the PCAOB's new standard. Such implementation guidance should not contain additional prescriptive requirements, but could instead, in the context of specific accounting estimates, focus on consideration of identification and assessment of risks of material misstatement (including fraud risks, the consideration of management bias, and how the auditor might identify and consider contradictory evidence), as well as how to identify and test the relevant financial reporting controls.

To best support the consistent application of a revised PCAOB standard regarding accounting estimates, it would be extremely important for the PCAOB's Office of the Chief Auditor to (i) provide input to the process to develop implementation guidance including the matters that might be addressed and the types of accounting estimates to be covered, (ii) acknowledge the final guidance, albeit non-authoritative, as being suitable for auditors to apply in addressing the requirements of the PCAOB's standards, and (iii) indicate that the guidance may be considered by PCAOB inspectors in assessing how auditors have complied with the PCAOB's standards in auditing accounting estimates.

---

*Audit Evidence.*

<sup>5</sup> However, we don't believe the task force has met since September 2011, and we are unclear as to its current status.

*Addressing the Issues Related to Use of Management Specialists and Information Provided by Third Parties.* As noted above, the issues related to use of management specialists and information provided by third parties in developing accounting estimates or in independent estimates used by auditors in testing management's estimates are inextricably linked with the auditing challenges related to accounting estimates. The PCAOB is considering expanded requirements in a variety of areas, including: (1) a requirement that the auditor would be required to test information provided by a specialist "as if it were produced by the company,"<sup>6</sup> (2) expanded requirements for testing data and assumptions obtained by an auditor from third parties and used in developing an independent estimate,<sup>7</sup> and (3) more detailed requirements to address situations when the third-party source used by the auditor is the same as the third-party source used by the issuer<sup>8</sup> and when audit evidence is obtained from third-party sources and used in determining fair value measurements, such as, but not limited to pricing services and broker-dealers.<sup>9</sup>

These complex issues will not be addressed by simply imposing additional obligations on auditors to perform more procedures on work done by specialists or on information provided by third parties. We believe the expanded requirements that are being considered for a potential new standard will likely set expectations for auditors that will go well beyond the expectations for issuer management, and practical challenges will arise that will be difficult, if not impossible, for auditors to resolve. In some cases specialists or third-party information providers view some or all aspects of their work product as proprietary and difficulties exist in relation to auditors (and issuer management) obtaining the necessary access to address requirements such as those proposed in the consultation paper. Even in situations in which information is shared today, there are challenges in that all auditors (and issuers) do not have consistent access to the same information.<sup>10</sup> Third-party information providers would also likely be overwhelmed and unable to individually address requests from all auditors of issuers for the information needed to address the expanded requirements. Requiring the auditor to use a different third-party source than management may not be possible when no alternative third party exists, and addressing the situation by requiring the auditor to evaluate the information as if it was produced by the company<sup>11</sup> in those cases may be neither practical nor possible, as the auditor may not have access to the third-party provider to be able to test the information in this way, and depending on the nature of the information, we question whether such testing would really be necessary.<sup>12</sup>

We understand from an investor's perspective, the desire for increased confidence in the information that is reported in an issuer's financial statements. We acknowledge the possibility of an expectation gap when the issuer has used the information provided by a third party in developing an estimate which has

<sup>6</sup> See discussion on pages 37 and 38 of the consultation paper.

<sup>7</sup> See discussion on pages 40 and 41 of the consultation paper.

<sup>8</sup> See discussion on pages 43 to 44 of the consultation paper.

<sup>9</sup> See discussion on pages 44 to 46 of the consultation paper.

<sup>10</sup> As noted in the consultation paper, "pricing sources are increasingly providing products that could provide auditors with insight into how their prices or estimates are developed"; however our experience would indicate that such information is not consistently provided to all auditors and that in many cases when it is provided, it is provided to a centralized group rather than an individual audit engagement.

<sup>11</sup> See page 44 of the consultation paper.

<sup>12</sup> Situations in which third-party information is used are not limited to the pricing services examples. For example, if management and the auditor both used published mortality rates from a reputable source in developing an estimated value for a particular obligation, we don't believe it would be possible (or necessary) for the auditor to have to test the data used and evaluate the reasonableness of the significant assumptions used in determining such rates.

not been tested by the auditor the same way that it would otherwise have been if it had been produced by the entity. We also understand investor concerns about use of management specialists; given that in many cases there are no existing objective means to verify their competence and expertise. Because of their complexity, we believe however, that a significant coordinated effort is necessary to address the broad issues related to accounting estimates, particularly as they become increasingly complex and issuer management uses a wide variety of different specialists or third-party information providers in developing them, and as a basis for the related disclosures in the financial statements.

We recognize of course that the PCAOB is only one player on the team that would need to work together to effect meaningful change; however we encourage the PCAOB to take a leadership role in calling for others, including the SEC, investor groups, preparer groups, specialist groups, accounting standard setters and others to work together to take broad-based action in this area. We stand ready to assist the PCAOB and others in any way we can, including initially providing the PCAOB with detailed examples of different types of accounting estimates, highlighting the related auditing challenges, and providing suggestions as to how they might be addressed. Some matters that we see as possibilities for broad-based actions include:

- Setting forth clear expectations for issuer management when using the work of a specialist engaged by the issuer, or third-party information provided to the issuer in developing accounting estimates, including expectations regarding the nature of the financial reporting controls that issuers should put in place.
- The development and implementation of robust and enforceable accreditation and certification standards for specialists, and for issuers to be required to engage accredited specialists if such specialists will be involved in developing accounting estimates.
- Developing an approach for addressing information developed by third-party information providers whereby information provided to and used by different preparers would be audited at the point of origination rather than the point at which it is used. Such an approach may entail designing an audit engagement that would be similar to that performed by a service auditor when examining and reporting on controls at a service organization, but which could be expanded to more specifically address the processes, controls, and outputs of the third-party information providers (e.g., evaluating the approach used by a pricing service to develop the pricing for select classes of assets, assessing the relevant controls, and testing the application of the approach to a selection of securities within each asset class covered by the engagement). The engagement would result in the issuance of a report that would address such matters, and similar to a service auditor's report could be made available to both preparers and their auditors, so that each could use the report to support conclusions about the relevance and reliability of the information provided and the effectiveness of related controls. An approach like this would also address the fact that it would simply not be practical to require each auditor (and arguably each preparer) to have to audit information provided by a third party and would also help mitigate concerns that not all auditors will be equally qualified to perform such work. We also believe the interests of investors would be better served by having one auditor with the demonstrated competence and expertise perform the work and for such work to be capable of being used by other auditors.

With respect to our suggestion in the bullet above, we note that as it relates to fair value measurements developed using information provided by third-party pricing services, some of the larger auditing firms



have developed centralized approaches whereby various categories of securities are addressed by a combination of vendor due diligence procedures and detailed testing of the pricing of selected securities. We believe that aspects of these approaches might be a useful basis for developing the audit engagement that would result in the report referred to in our remarks above. Consistent with our remarks above, we are ready to play a leading role in working with the PCAOB and others to move forward on this proposal. To that end, we would welcome the opportunity to meet with the PCAOB Chief Auditor and his staff to provide more detailed information on the centralized process employed at Deloitte, and to answer any questions the Staff may have on our approach.

[Considerations Relevant to Use of Specialists and Differences in Extant Standards for Fair Value Measurements and Other Accounting Estimates](#). For many accounting estimates in which management has used a specialist, PCAOB AU 336, *Using the Work of a Specialist* (PCAOB AU 336), currently provides the basis for evaluating the work performed by a management specialist. The application of PCAOB AU 336 provides that the “appropriateness and reasonableness of methods and assumptions used and their application are the responsibility of the specialist.” The auditor is required to understand the methods and assumptions used by the specialist, test the data provided to the specialist, and evaluate whether the specialist’s findings support the related assertions in the financial statements.<sup>13</sup> As such, the standard currently provides for an approach whereby the auditor can, subject to an appropriate assessment of the competence and objectivity of the specialist, not have to test all of the information used by the specialist in the same way as if it was all generated internally by the company.

Fair value measurements are currently addressed by PCAOB AU 328, and the consideration by the auditor of the work done by management’s specialist is different than for other accounting estimates. Footnote 2 of PCAOB AU 328 indicates that “management's assumptions include assumptions developed by management under the guidance of the board of directors and assumptions developed by a specialist engaged or employed by management.” The effect of this footnote therefore requires that the auditor understand and evaluate management’s assumptions, the model, and the data, and does not provide for the ability of the auditor to take account of work performed by the specialist in the manner described by PCAOB AU 336.<sup>14</sup> The proposed requirement would include assumptions, models, and data used by management specialists and third-party information providers (regardless of whether management provided the information to the specialist or the specialist sourced or developed the information independently). Addressing this requirement when estimates involve a third party or specialist is currently very challenging, particularly when information provided or models used are considered proprietary by such specialists or third-party sources. Auditor challenges in this area are also evidenced in the high level of inspection findings in this area, including many findings cited in the public parts of PCAOB inspection reports. Expanding the requirements of PCAOB AU 328 to apply to all accounting estimates would not address the challenges that exist today, and would likely increase them significantly.

We believe that alternative solutions need to be explored to address these concerns in a measured and rational manner, rather than significantly expanding requirements for auditors that in many cases would be unreasonable, if not impossible to satisfy. We also believe that notwithstanding the differences in the current standards for fair value measurements as opposed to other accounting estimates, the auditing of

<sup>13</sup> See PCAOB AU 336, paragraph 12.

<sup>14</sup> See PCAOB AU 328, paragraphs 26-39.

fair value measurements might be effectively addressed going forward through a combination of the approaches suggested in this letter, including the principles-based standard discussed above, the development of alternative means to address the reliability of information through centralized testing performed at its source rather than when it is used, raising the bar on expectations for any management specialists that are engaged by the issuer and the development of practical implementation guidance in the manner described above.

**Differentiating Between Specialists and Third-Party Information Providers.** The current PCAOB standards do not clearly differentiate between third-party information providers and specialists, including situations when management uses them, or when the auditor uses them in auditing management's process, or in developing independent estimates. We believe that the two are distinguishable from one another, including in the context of fair value measurements,<sup>15</sup> and that the differences should be acknowledged in and taken into account when developing the requirements in a potential new accounting estimates standard.

An important distinction between a management specialist and a third-party information provider relates to the inherent risk that the information is affected by bias. We believe that in general, values determined by third-party information providers are likely inherently less biased than values determined by management specialists. The information provided by a third party that is supplying that same information to a broad range of users is unlikely to be affected by bias that might be motivated by a single user of that information, that is, the breadth of the users of the information tends to reduce the risk of bias in a third-party information provider's process. On the other hand, when management employs a specialist, the risk increases that management bias will be reflected in the estimated value determined by such a specialist as the specialist will likely use information (data and/or assumptions) provided by management. Depending on the level of objectivity and competence of the specialist, the value determined by the specialist is never-the-less still likely to be less biased than if the value was determined by management. Given these differences, management's processes and controls will also vary depending on whether and how a management specialist or a third-party information provider is used, that is, being possibly less rigorous or detailed and focused on the risk of management bias when estimates are determined using information provided by reputable third parties (who supply the same information broadly to other users) than when management engages a suitably qualified specialist to develop an entity-specific estimate. The extent to which controls are in place by management also assists in mitigating management bias in the preparation of management estimates.

Differentiating between specialists and third-party information providers is also dependent on the facts and circumstances, and in some cases the same party might be considered an information provider, while in other situations, that party might function as a specialist. For example, a third-party pricing service center could be an information provider with respect to certain types of fair value measurements that are

---

<sup>15</sup> We note that the International Auditing and Assurance Standards Board's ISA 500, *Audit Evidence*, includes an example in paragraph A35 that differentiates a management specialist from a third-party information provider as follows: "For example, an individual or organization may possess expertise in the application of models to estimate the fair value of securities for which there is no observable market. If the individual or organization applies that expertise in making an estimate which the entity uses in preparing its financial statements, the individual or organization is a management's expert.... If, on the other hand, that individual or organization merely provides price data regarding private transactions not otherwise available to the entity which the entity uses in its own estimation methods, such information, if used as audit evidence ... is not the use of a management's expert by the entity."

valued using observable inputs (e.g., when providing values for level 1 investments that are determined based on quoted prices). Alternatively, for other types of financial instruments, a third-party pricing service center may function more like a specialist (e.g., when providing values for level 2 or level 3 investments that are not widely held and infrequently traded and therefore hard to value due to the absence of observable market data, or because only limited amounts of information are available).

We believe these factors should be taken into consideration when establishing audit requirements in a potential new standard. The level of audit effort required should be commensurate with the assessment of the related risks of material misstatement, including fraud risks. Additionally, with reference to our recommendations above, to the extent that appropriate accreditation and certification standards are established for management specialists and related requirement for issuers to only use suitably accredited specialists are established, the auditing standards should provide for the ability of auditors to place appropriate reliance on work that they have performed.

## ECONOMIC IMPACT AND IMPLICATIONS

---

We support the PCAOB Staff's efforts to obtain information and views regarding economic implications of the alternatives addressed in the paper. We encourage the PCAOB Staff to continue to conduct additional research and analysis as alternatives are considered, and as they develop the proposed standards addressing not only accounting estimates, but also use of specialists.

Expanded requirements for auditors will of course result in increased audit effort and related costs. For example, requirements for auditors to test information produced by third parties "as if it was produced by management" will drive incremental audit effort. We believe the suggestions in our letter will help ensure that any new requirements are implemented in a cost-effective manner, such that the benefits of applying the standard outweigh the associated costs. The importance of clear expectations or requirements for issuers that are aligned with the responsibilities for auditors also cannot be over-emphasized, especially as they relate to the related financial reporting controls and the extent to which management can use or rely on work performed by specialists or information provided by third parties. Disproportionate increases in audit costs will likely result if the requirements for auditors are not aligned with those of management. Therefore, in order for costs of expanded requirements for auditors to be managed most effectively, and consistent with some of our recommendations in this letter, new approaches must be considered and developed that take account of, and carefully coordinate requirements for auditors and for preparers.

As noted above, outreach to and collaboration with others, including preparers, investors, the FASB, SEC, and specialist professions is an essential element of this project and key to developing approaches for the initiative to not only address the issues relating to accounting estimates as discussed above, but also in connection with assessing the economic impact and implications of proposed alternatives to amending the PCAOB's auditing standards.

\* \* \*

D&T appreciates the opportunity to provide our perspectives on these important topics. Our comments in this letter and the accompanying Appendix A are intended to assist the PCAOB in analyzing the relevant issues and potential effects of PCAOB standard-setting activities related to accounting estimates and fair value measurements. We have attempted to provide comprehensive input which we hope will be helpful to the PCAOB Staff as they move forward to the next stage of this very important project. We



encourage the PCAOB to continue to engage in active and transparent dialogue with commenters and other stakeholders as any proposed standards are developed and alternatives are considered.

Notwithstanding our recommendation for addressing issues and challenges related to auditing accounting estimates holistically, given their significance we believe it is important for the PCAOB to take action in moving this initiative forward. We would very much welcome the opportunity to assist in whatever way we can, including as an initial step meeting with the PCAOB Chief Auditor and his staff to further discuss our viewpoints on the consultation paper, and provide additional insights on the matters and issues discussed in this letter including, but not limited to:

- Discussing specific examples of different types of accounting estimates and the related challenges that we face today, and how those challenges might be affected through application of some of the requirements proposed in the consultation paper
- Providing further insight into our centralized due diligence approach for pricing vendors.

If you have any questions or would like to discuss these issues further, please contact John Fogarty at 203-761-3227, Thomas Omberg at 212-436-4126 or William Platt at 203-761-3755.

Very truly yours,

*Deloitte & Touche LLP*

Deloitte & Touche LLP

cc: James R. Doty, PCAOB Chairman  
 Lewis H. Ferguson, PCAOB Member  
 Jeanette M. Franzel, PCAOB Member  
 Jay D. Hanson, PCAOB Member  
 Steven B. Harris, PCAOB Member  
 Martin F. Baumann, PCAOB Chief Auditor and Director of Professional Standards

Mary Jo White, SEC Chairman  
 Luis A. Aguilar, SEC Commissioner  
 Daniel M. Gallagher, SEC Commissioner  
 Kara M. Stein, SEC Commissioner  
 Michael S. Piwowar, SEC Commissioner  
 James V. Schnurr, SEC Chief Accountant  
 Brian T. Croteau, SEC Deputy Chief Accountant

## APPENDIX A

In this Appendix, we have addressed certain issues raised in the consultation paper in more detail, including where applicable, the proposed drafting suggestions for new requirements that might be included in a potential new standard. Our comments and observations are organized as follows:

- I. Alignment with the Risk Assessment Standards
- II. Substantive Procedures for Testing Management's Estimates

### **I. ALIGNMENT WITH THE RISK ASSESSMENT STANDARDS**

---

The PCAOB is considering integrating a potential new standard with the PCAOB's risk assessment standards. We are supportive of this approach and agree that it is important that any new standard is closely integrated with the PCAOB's risk assessment standards, and also that any new standard and related conforming amendments build upon the requirements of the risk assessment standards for identifying, assessing, and responding to the risks of material misstatement. We also believe that it is important that the PCAOB specifically consider and address the linkage between a new proposed standard and the requirements of PCAOB AU 316, *Consideration of Fraud in a Financial Statement Audit*, which addresses the consideration of risks of material misstatement due to fraud.

The PCAOB is considering an approach whereby targeted amendments would be made to the risk assessment standards to address incremental considerations specific to accounting estimates. We believe it would be more appropriate for the PCAOB to build on the requirements in the risk assessment standards, but instead include additional requirements and guidance in a new accounting estimates standard, as having the content in one place might facilitate more consistent application of the requirements. As noted above, practical implementation guidance that is acknowledged and accepted by the PCAOB as satisfying the requirements of the PCAOB's auditing standards would provide additional context and detail for auditors and would facilitate more consistent application of the PCAOB's standard and improved audit quality.

*Identifying and Assessing Risks of Material Misstatement.* We believe it is appropriate for the risk assessment process for accounting estimates to include understanding management's process for developing such estimates.

Understanding How a Company Develops its Accounting Estimates When Using Specialists or Third-Party Information Providers. The potential amendment to PCAOB AS 12, *Identifying and Assessing Risks of Material Misstatement* (PCAOB AS 12), proposed in the consultation paper for understanding the extent to which the company uses a third party or information provided by a third party in developing accounting estimates,<sup>16</sup> does not make a distinction between the two. As discussed in our overall comments, we believe however that a distinction exists, and that a potential new standard should acknowledge these differences and thereby support differentiation in the auditor's responsibilities. Practical implementation guidance developed in accordance with the approach that we describe above

---

<sup>16</sup> See page 24 of the consultation paper.

and which addresses use of specialists and third-party information providers for different types of accounting estimates would be very helpful in driving consistent application of a potential new standard.

**Determining which Risks are Significant Risks.** Paragraph 71 of PCAOB AS 12 specifies factors that should be evaluated in determining which risks are significant risks, and includes sub-paragraph f. as follows:

“The degree of complexity or judgment in the recognition or measurement of financial information related to the risk, especially those measurements involving a wide range of measurement uncertainty.”

The factors identified in the proposed amendment on page 25 may provide additional guidance to the auditor in applying the existing requirement in PCAOB AS 12.71f as it relates to accounting estimates and fair value measurements (i.e., as considerations that may be useful “in evaluating the degree of complexity or judgment in the recognition or measurement of an accounting estimate”). We believe that the factors should be provided as guidance and not as matters the “auditor should take into account.” As drafted in the consultation paper, the proposed amendment appears to imply that all of the matters would need to be explicitly addressed for each accounting estimate and therefore the documentation of such assessment for each accounting estimate would need to include consideration of all of the factors in all cases. In many cases not all of the factors would be relevant (or relevant to the same degree) and therefore this proposed requirement would likely be unduly onerous in such cases, particularly for less complex or subjective estimates. We also believe it would be helpful to indicate in a proposed standard what the auditor should consider relative to the types of models or calculations used and how that would be expected to inform the assessment of the significance of the related risks of material misstatement (e.g., is it expected that the more complex or more unique the models are, or the more complex the calculations, the more likely the auditor would assess the related risks of material misstatement as significant?).

We are not supportive of designating certain types of accounting estimates or fair value measurements as presumed significant risks. Not all assertions or risks of material misstatement related to a particular assertion are necessarily of the same significance. For example, certain aspects of a particular estimate are likely to always be more inherently risky than others (e.g., certain assumptions for the valuation assertion for a particular estimate might have higher estimation uncertainty than others), and accordingly auditors should be encouraged to focus on designating only those aspects that have the highest inherent uncertainty as significant risks, rather than identifying entire accounting estimates as significant risks. Even complex or subjective estimates likely include aspects that are not as inherently risky.

Consistent with our overall remarks regarding an appropriate emphasis on internal control, we believe that it is important that the potential standard also remind auditors of the responsibility pursuant to PCAOB AS 12 to identify the relevant controls that address significant risks relating to estimates (including fraud risks), evaluate their design, and determine that they have been implemented (and for integrated audits, the responsibility pursuant to PCAOB AS 5 to also test the operating effectiveness of such controls).

**Extent and Timing of Substantive Procedures.** As noted in the consultation paper, paragraphs 42-46 of PCAOB AS 13, *The Auditor's Responses to the Risks of Material Misstatement* (PCAOB AS 13), address the extent and timing of substantive procedures. While we agree that these requirements are also applicable to substantive procedures performed to address accounting estimates, we also believe that

auditors would benefit from additional guidance on how to apply these requirements in the context of accounting estimates.

Analysis that we have performed into our inspection findings (both generally as well as specifically related to auditing accounting estimates) supports that time pressure during the year-end procedures is a relevant causal factor for audit deficiencies. We therefore believe that a potential new standard should explicitly address whether and how substantive procedures to address accounting estimates can be performed as of an interim date. The appropriate approach for interim procedures might vary for different types of accounting estimates and would also be a function of the significance of the assessed risks of material misstatement; so flexibility in the wording used in a proposed standard would be necessary. This is also an area where implementation guidance could be developed to illustrate application of the requirements of the requirements on a proposed standard (see discussion in our overall comments for a possible approach to the development of such guidance). Generally, we believe that an appropriate approach would be for auditors to obtain a detailed understanding of accounting estimates as part of the risk assessment process and to perform procedures to corroborate that understanding as of an interim date, including testing information used in developing accounting estimates and if applicable, performing tests of the design and operating effectiveness of the related controls. In a well-controlled company and particularly as it relates to less complex, less subjective accounting estimates, audit procedures performed at an interim date (including tests of relevant controls) should provide the basis for the auditor to perform less extensive procedures at year end (e.g., perform appropriate procedures to rollforward interim conclusions to the period end instead of performing all the work at the period end).

**Testing Conformity with the Applicable Financial Reporting Framework.** We believe that consideration of the requirements of the applicable financial reporting framework is foundational to the assessment of the risks of material misstatement for any significant account balance or disclosure,<sup>17</sup> and therefore a key element of the risk assessment process. PCAOB AS 13 requires that the auditor address the risks of material misstatement through appropriate overall audit responses and audit procedures. We also agree with the PCAOB's assessment that the existing requirement in PCAOB AS 14, *Evaluating Audit Results*, is an appropriate overall assessment as to whether the company's disclosures are in conformity with the applicable financial reporting framework. Accordingly, we believe that the additional statement proposed to amend paragraph 36 of PCAOB AS 13<sup>18</sup> would be disconnected from the risk assessment process, in addition to being redundant with existing requirements.

Similarly, we also do not believe that it is necessary for a new potential standard to include specific or incremental audit procedures related to auditing disclosures of accounting estimates, as the requirements to perform procedures to address risks of material misstatement relating to disclosures already exist within the PCAOB's risk assessment standards. There are a large number of different accounting estimates with a variety of different disclosure requirements, including situations in which the applicable requirements might differ between applicable financial reporting frameworks (e.g., differences between

<sup>17</sup> PCAOB AS 12, paragraph 60 states "As part of identifying significant accounts and disclosures and their relevant assertions, the auditor also should determine the likely sources of potential misstatements that would cause the financial statements to be materially misstated."

<sup>18</sup> The proposed amendment is "Performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework."

U.S. Generally Accepted Accounting Principles and International Financial Reporting Standards). By including detailed requirements relating to aspects of specific accounting estimates, we believe that there is a risk that the PCAOB's auditing standards might be perceived as setting accounting guidance for issuers, and we believe strongly that the PCAOB's auditing standards should remain framework-neutral. We recognize however that some disclosures for certain accounting estimates might be more significant or sensitive, thereby warranting additional focus by the auditor. The auditing of particular disclosures (e.g., disclosures on levels within the fair value hierarchy) would be an appropriate topic to be addressed by implementation guidance that might be developed in accordance with the process described in our overall comments.

**Testing Controls.** We believe the existing requirements in PCAOB AS 13 and PCAOB AS 5 provide an appropriate framework for testing relevant controls, and that such framework can be applied to testing controls over accounting estimates. The auditing of relevant controls over accounting estimates, and in particular management review controls would also be an appropriate topic to be addressed by implementation guidance that might be developed in accordance with the process described in our overall comments.

**Procedures Relating to Significant Risks.** As a general matter, it is very important that specific audit procedures are tailored to address the risks specific to the particular estimate. On page 29, the consultation paper discusses the approach taken in ISA 540 to include more specific requirements addressing estimation uncertainty and recognition and measurement criteria for accounting estimates that give rise to significant risk. The requirements in the ISA are accompanied by application guidance that results in an approach that is scalable, but without being overly prescriptive. We therefore believe that it will be difficult to draft detailed audit procedures that would be applicable to all significant risks related to all accounting estimates, given the range of different types of estimates and therefore the variety of the related significant risks that may be identified. The approach taken in the ISAs is capable of being applied to the different significant risks that might arise for different types of accounting estimates, and therefore represents an appropriate starting point for the PCAOB's potential standard. We also encourage the PCAOB to consider whether this approach may also be appropriate for the aspects of accounting estimates that give rise to higher, but not necessarily significant risks.

## **II. SUBSTANTIVE PROCEDURES FOR TESTING MANAGEMENT'S ESTIMATES**

---

The approaches in the existing standards for performing substantive procedures to address risks of material misstatement relating to accounting estimates (i.e., testing the company's process, developing an independent estimate, or reviewing subsequent events and transactions) should be retained in a potential new standard, but should not indicate that one approach would always be seen as preferable to another. Given the specific facts and circumstances relevant to a particular accounting estimate, the processes management might use in developing the estimate and the related risks of material misstatement, one or more of these approaches may be more appropriate or might not be possible, and therefore auditors should be able to apply professional judgment in making a determination as to the approach to follow. A potential new standard requiring use of one of the approaches, or implying that there was a barrier to be overcome in making a selection to use one method versus another, would likely be difficult, if not impossible to apply in practice.

**Testing the Company's Process.** We support the retention of the ability to address the substantive testing of an accounting estimate through testing the company's process. In some situations, including

where management has used a specialist in developing a particular accounting estimate, alternative methods to develop the estimate might not exist such that the auditor would not be able to develop an independent estimate. We acknowledge however the implicit challenges in testing the company's process from the perspective of addressing the risk of management bias, and in particular, that the exercise of professional skepticism by the auditor may be hampered by confirmation bias (i.e., the human tendency to accept evidence that confirms our beliefs and to reject evidence that contradicts them). Addressing confirmation bias is challenging, but awareness of its existence and the likelihood that judgments can be affected, as well as active efforts to identify and understand contradictory information are key aspects. Accordingly, we are supportive of emphasis being placed in a potential standard on the importance of considering contradictory or disconfirming information, together with the recognition of the reality that the auditor can never eliminate the risk of bias completely.

**Evaluating the Company's Method Used to Develop an Accounting Estimate.** We support the first part of the proposed requirement on page 33 of the consultation paper that the auditor should evaluate whether the company's methods used to develop the accounting estimates are appropriate, including evaluating whether the methods are in conformity with the applicable financial reporting framework (noting that this is consistent with existing standards.) However, we don't believe that the auditor should be required to evaluate whether the methods are "accepted within the company's industry," as we don't believe that what is accepted within the industry is objectively established for all accounting estimates, and in some cases, practices used by companies within the same industry may be justifiably different based on different underlying facts and circumstances. Management would not have a similar requirement to consider the acceptability of a company's method against other methods used within the same industry. We therefore believe it is sufficient and appropriate that the methods used to develop accounting estimates be evaluated by the auditor against the requirements of the applicable financial reporting framework, as this is the same requirement that management would have to comply with in preparing the financial statements. Even if it were possible to determine "accepted industry practices," it's not clear what the auditor would do when such practices might conflict with the requirements of the applicable financial reporting framework. Similarly, we don't believe that it is necessary to include a specific requirement to address the consistency of the application of the methods to develop accounting estimates. The consistency of the application of a company's accounting policies is addressed in the requirements of the applicable financial reporting frameworks, and the auditor's considerations are addressed in PCAOB AS 6, *Evaluating Consistency of Financial Statements*.

**Evaluating the Reasonableness of Significant Assumptions.** We support including requirements for understanding the significant assumptions underlying accounting estimates and testing those assumptions for reasonableness, consistent with existing standards. We also believe the characteristics of significant assumptions as described in the consultation paper on page 35 may be helpful to auditors, particularly for auditing fair value measurements; however they should not be set forth as a complete list of factors that would need to be explicitly evaluated for each and every assumption relevant to a particular accounting estimate. Given the wide range of different types of estimates, not all the factors would always be relevant and there may also be other relevant factors specific to particular assumptions that would make them more significant for the applicable accounting estimate.



The proposed standard should also not include a requirement to “identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate.”<sup>19</sup> The company’s controls should address the determination of which are the significant assumptions. It is not clear how the auditor would establish the population of assumptions not used by management, and therefore the requirement would likely be difficult, if not impossible, to apply in practice, particularly for estimates that have numerous significant assumptions and arguably many potential alternatives. We believe that emphasis in a proposed standard would be better placed on the importance of exercising appropriate professional skepticism including in understanding and evaluating the effectiveness of management’s controls, whether and how management has considered alternative assumptions or outcomes, why they may have been rejected or how management has otherwise addressed estimation uncertainty in developing the accounting estimates.

While the factors included in the proposed requirement on page 37 of the consultation paper for evaluating the consistency of significant assumptions may be generally helpful, we are concerned that a requirement for the auditor to evaluate the consistency of *each* significant assumption with all of the factors listed will be difficult to apply in practice. It’s not clear what process the auditor would be expected to follow to define the factors and what level of detail would be expected (e.g., how much work would the auditor be expected to undertake to identify and assess “relevant industry, regulatory and other external factors” or “existing market information” beyond the overall understanding obtained as part of the auditor’s risk assessment activities performed to address the requirements of PCAOB AS 12). Any requirement for the auditor to evaluate significant assumptions should rather be grounded in the requirements of the applicable financial reporting framework as it is those requirements that management has to comply with (and which the company’s controls need to be designed to address).

*Developing an Independent Accounting Estimate.* We agree that a potential new standard should retain the option of developing an independent accounting estimate as one of the overall approaches to testing an accounting estimate. Consistent with the commentary in the consultation paper,<sup>20</sup> auditors develop independent estimates in different ways, and it would therefore be appropriate for the new standard to provide the necessary flexibility to accommodate the different approaches.

There are different risks associated with information developed internally vs. information developed externally, and therefore we are supportive of a potential new standard distinguishing between data and assumptions produced by the company versus being obtained from third parties (as suggested in the proposed requirement in the consultation paper).<sup>21</sup> There is more risk that internally-developed information is subject to management bias (either intentionally or inadvertently) and therefore the auditor’s assessment of the accuracy and completeness of such information is more important. However, we believe that generally there may be less risk that information provided by third parties is subject to bias, particularly if the same information is provided to a broad range of users (see discussion in our overall comments). Of course, it is still important for the auditor to carefully consider the nature of the information being used, and whether it is appropriate for the circumstances. However, as it relates to information provided by reputable third parties (e.g., the U.S. treasury or other government departments) that is provided broadly to a wide range of users (e.g., published interest rates or rates of inflation), we

<sup>19</sup> As suggested in the consultation paper in question 28 on pages 35 and 36.

<sup>20</sup> See discussion on page 39 of the consultation paper.

<sup>21</sup> See proposed requirement on page 40 of the consultation paper.

believe that the auditor should be focused on assessing the relevance and reliability of such information in accordance with PCAOB AS 15 rather than being required to test its accuracy and completeness, which depending on the nature of the information may be impossible. Consistent with our comments above however, we encourage the PCAOB to include applicable requirements in PCAOB AS 15 to address information prepared by a management specialist, similar to the requirements in the IAASB's and ASB's audit evidence standards.<sup>22</sup>

Developing an Independent Accounting Estimate as Range. We note that the consultation paper<sup>23</sup> is considering an approach “*for a potential new standard to emphasize that the estimate is limited to outcomes within the range that are supported by sufficient appropriate audit evidence.*” Depending on the level of estimation uncertainty, the range of possible values for an accounting estimate could be wide (and in some cases above materiality), and the process involved in developing the estimate can be complex and involve significant levels of judgment. It would be helpful for the potential new standard to explicitly acknowledge this situation. We are concerned that the proposed statement implies a level of precision for all amounts within the range that may not be capable of being determined for all estimates (and which would go beyond the requirements of the applicable financial reporting frameworks), especially for those that have high estimation uncertainty.

Evaluating Evidence from Subsequent Events. We are supportive of a potential new standard continuing to provide for the option of testing accounting estimates by considering audit evidence that may be provided by or in relation to events or transactions that occur after the balance sheet date. Such option may also be used in isolation, or in combination with testing the company's process or developing an independent accounting estimate. We believe the proposed requirement to address audit evidence that might be provided from subsequent events or transactions that is included on page 42 of the consultation paper captures what is implicit in the existing standards for auditing accounting estimates (including fair value measurements); however, the additional clarity it would provide would be helpful.

---

<sup>22</sup> See ISA 500, paragraph 8 and AU-C 500, paragraph 8, and related application material.

<sup>23</sup> See page 41 of the consultation paper.



---

Mr. Martin F. Baumann  
Chief Auditor  
Office of the Secretary  
PCAOB  
1666 K Street, N.W.  
Washington, DC 20006-2803

November 3, 2014

Re: Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*

Dear Mr. Baumann,

We welcome your invitation to comment on your Staff Consultation Paper: *Auditing Accounting Estimates and Fair Value Measurements*. As the leading provider of independent valuation support to public registrants and investment company managers, we have unique insight and experience with respect to the rigor and support preparers of financial statements utilize in estimating fair value and the scrutiny auditors apply in auditing fair value measurements.

Our role in the financial statement preparation process is distinctive. We support management teams to enhance their internal control process with respect to estimating fair value and/or we assist management teams with fair value analyses that serve as an input for consideration by management in preparing their financial statements.

Management is responsible for the assertions contained in the financial statements and cannot abdicate this role to a third party. However, management can enhance their process by obtaining support from experienced valuation professionals. For example, it has become best practice of the largest Private Equity and Hedge Fund investment managers to validate fair value estimates using a qualified, experienced third party. Investors have come to rely on enhanced internal control systems which appropriately include specialized valuation expertise. Further, traditionally management has sought assistance from third party valuation specialists in complying with financial reporting requirements related to business combinations, impairment testing and share-based compensation, among others. In either case, the valuation professional is engaged to assist management in fulfilling management's responsibility of preparing financial statements.

Our comments are derived from years of experience supporting management with their valuation estimates. In 2013 alone we performed more than 10,000 engagements for 4,600 clients including 50% of the largest Private Equity Funds and Hedge Funds, 57% of Fortune 100 companies, and more than one-third of the S&P 500. Our personnel support industry

efforts to enhance consistency and transparency, including participation on FASB's Valuation Resource Group, various AICPA and TAF (The Appraisal Foundation) task forces and working groups, and other industry bodies such as the International Private Equity and Venture Capital Valuation Board, and the International Valuation Standards Council.

Our goal in responding to your invitation to comment is to provide our expertise and experience as you consider changes to audit standards which, in turn, will guide the accountability of auditors in exercising their role in capital markets - ensuring that financial information meets the needs of investors and is provided on a reliable, high-quality, consistent, transparent and cost-effective basis.

**General Comments:**

1. We understand that, through its oversight activities, the PCAOB has observed significant audit deficiencies with respect to auditing of fair value measurements. While such cases are facts- and circumstances-specific, the magnitude of the discrepancies observed does raise the question as to what is broken:
  - a. Is the judgment required by FASB ASC Topic 820 too vague?
  - b. Is existing audit guidance unclear?

Increasingly, we have observed auditors urging their clients to use mathematical models which may support an estimate of value and may be easier to audit, but which do not necessarily reflect market participant assumptions and therefore may be inconsistent with ASC Topic 820.

In some cases, audit deficiencies may result from inadequate documentation of fair value estimates by management which may further magnify itself into inadequate audit testing and/or documentation. Our experience demonstrates that those preparers of financial statements who have an enhanced internal control process and strong internal documentation procedures are better able to articulate fair value compliant with ASC Topic 820, even with the significant judgment required.

The FAF's post implementation review for SFAS 157 (ASC Topic 820) concluded that the accounting standard is functioning as intended. While some industries question this conclusion, it would appear as though FASB is not intending to modify ASC Topic 820. Therefore, to reduce audit deficiencies it would appear that clearer audit guidance is needed.

As the PCAOB considers modifications to audit standards, we suggest the following for consideration:

- A. Enhanced internal control processes with respect to valuation often include the use of a qualified, experienced third-party valuation provider to assist management's process of fair value estimation and conclusions. Therefore, audit

standards should include guidance on how auditors can conclude on the effectiveness of: 1) management's internal controls when using the work of a third-party specialist; as well as 2) how such third-party specialist contributes to enhancing the internal control system, where applicable.

- B. Because of the judgment required with fair value measurements, mandating specific mathematical models, either by audit standards or by individual auditors, may be inconsistent with ASC Topic 820's requirement to use market participant assumptions and judgment. Therefore, audit standards with respect to substantive testing should be aligned with the judgment required by ASC Topic 820 and should not be focused on the ease of auditing (an example would be the use of Option Pricing Models for Investment Managers).
  - C. Historically, as markets were more liquid, certain securities were valued using "pricing services."<sup>1</sup> Practice with respect to so-called pricing services is inconsistent. Again, as part of the internal control process or valuation procedures of a registrant, it should be made clear that management is responsible for fair value estimates and cannot blindly accept third-party prices. Broker quotes, for example, should be based on actionable contemporaneous market activity. If management cannot demonstrate that such third party sources are actionable and contemporaneous, then management should be undertaking additional procedures to support their fair value estimate. Therefore, audit standards should ensure that pricing services (which are generally separate and distinct from the valuation support described in B above), cannot be blindly accepted by either management or the auditor.
  - D. It is important for any new standard to bear in mind the specific responsibility of the auditors and to operate within those parameters. The requirements of the standard should not impose audit procedures that should be the responsibility of management.
2. The Consultation Paper (page 8) states that "The complex nature of some financial instruments creates challenges in determining their value, which can be based primarily on unobservable inputs (that is, inputs not corroborated by market data)." While we agree that fair value estimates using Level 3 inputs can be challenging, the requirement in ASC Topic 820 to calibrate valuation inputs with valuation techniques is a powerful tool that is not consistently used. Management that utilizes the services of an experienced, qualified third-party valuation specialist is often in a better position to calibrate Level 3 inputs with available market data, thereby enhancing the rigor of the fair value judgments. In most cases, calibration does allow unobservable inputs to be corroborated by market data.

---

<sup>1</sup> <http://www.sec.gov/news/speech/2011/spch120511jkp.htm>

3. As you consider modifications to audit standards, it is important to distinguish between a specialist (used by the auditor to assist in obtaining audit evidence) and a valuation specialist used by management of a registrant to enhance a registrant's internal control process and/or the rigor of management's fair value estimates. Again, management is responsible for the assertions in the financial statements, and while they can obtain assistance from experienced qualified specialists, management is ultimately responsible for their own fair value measurement assertions.
4. The PCAOB staff has recommended several alternative approaches to enhance audit guidance resulting in fewer audit deficiencies. As our role is primarily to assist management in supporting their fair value assertions, we do not have a strong preference for the ultimate course of action. However, as discussed above, we believe additional guidance is necessary.

### Responses to Specific Questions

- **Questions 12-13 (page 24).** We agree that the potential amendment is appropriate. However, careful consideration should be given with respect to AU sec. 324: in many cases, a third-party valuation specialist is working as an extension of management and thus it would not be necessary to evaluate the information systems of every third party. Also, in many of the more traditional roles in which a third-party valuation specialist assists management, the deliverable to management typically includes information (often in the form of a report) explaining the processes and procedures undertaken in accordance with ASC Topic 820's fair value measurement framework. Further, in those cases, management additionally relies on its own internal control systems in the process of evaluating and incorporating fair value estimates provided by the third party into their own financial statements.
- **Question 20 (page 28).** In many cases, a third party is used by management as an enhancement to their internal control process. Therefore, it would be appropriate to provide guidance on how to test internal controls which include the use of an experienced, qualified third-party valuation specialist.
- **Question 25 (page 31).** Given that ASC Topic 820 requires the use of judgment and market participant assumptions, it is appropriate to provide audit guidance in this context. Data should be tested consistent with the way market participants use and vet data when undertaking a transaction.
- **Questions 26-27 (page 34).** We believe another important criterion to consider in method selection is whether the method would be used, and how it would be used, by market participants transacting with respect to the subject asset, liability, or the appropriate higher level of asset/liability aggregation. The entire fair value measurement framework is premised on the appropriate selection of relevant market participants, and this would impact the fair value assumptions and estimation. For example, market

participants may not necessarily employ option models when putting into place contingent consideration structures or investing in financing rounds of early stage private companies, but rather, may in many cases rely on a scenario analysis.

- **Question 31 (page 38).** Management's use of an experienced, qualified valuation specialist to support them in their fair value estimates provides increased rigor in a cost-effective manner. We believe that the proposed requirement that the "auditor should test the information provided by the specialist as if it were produced by the company" is consistent with current practice and the requirement that management stand behind all financial statement assertions. However, we think that the auditors doing such testing should be required to either themselves possess the skills to develop the fair value estimates, or employ specialists as part of the audit team to assist with such testing. Without having this assurance in place, the testing process would neither be productive, nor cost effective.
- **Questions 32-35 (page 41).** Because fair value measurements require judgment and require the use of market participant assumptions, it may be not be possible for an auditor to develop an "independent" assessment of value that is as good as, or better than management's assessment of value (assuming management has a rigorous, U.S. GAAP-compliant valuation process). ASC Topic 820 requires a fair value point estimate; however market participants (outside of a specific transaction) often view value as a range. Therefore, audit guidance should focus on providing auditors with the know-how to assess management's estimate of value within a reasonable range and not superimposing auditor judgment over management's view. It should also be clear that management should have a clear, robust and appropriately documented valuation process and basis for conclusions. For example, the private equity industry has developed self-regulatory valuation guidelines ([www.privateequityvaluation.com](http://www.privateequityvaluation.com)) to assist management in ensuring robust valuation estimates. In other settings requiring fair value for financial reporting, there exist industry best practice valuation and accounting guides produced by task forces organized by the AICPA and The Appraisal Foundation.
- **Questions 38-43 (page 44-46).** Use of Third Parties. We agree that it should be clear that third-party sources used by auditors to assist in developing audit evidence should be evaluated separately and distinctly from third parties used by management to enhance their valuation process and conclusions. Audit guidance should clearly delineate between specialists used by auditors for audit purposes and specialists used by management for financial statement preparation purposes. Neither the auditor, nor management, should blindly rely on broker quotes, fund administrators, nor other providers of value without understanding the assumptions and techniques used to develop the fair value estimate and the experience of the third party.
- **Questions 44, 45.** Because of the number of identified fair value audit deficiencies, many auditors have begun mandating their clients to use mathematical models (which may not be consistent with market participant assumptions as dictated by ASC Topic

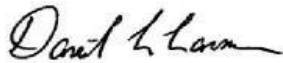
Office of the Secretary  
November 3, 2014  
Page 6 of 6

820) to drive the fair value estimation process. As a result, the internal administrative costs of the audit client have increased and the time required to perform an audit has increased. Many would argue that these additional costs bring little, if any added value. Therefore, audit guidance, which assists auditors with dealing with the challenge of auditing judgment inherent in ASC Topic 820, should, over time, create efficiencies in the financial statement preparation and verification process.

We appreciate the opportunity to provide the Staff our thoughts on this important initiative. Our comments have been, by design, relatively brief and high level. We would welcome the opportunity to provide the Staff with additional information on how management uses third parties to assist in their fair value estimates and the multitude of ways that auditors evaluate such enhancements to managements control process.

Please let us know how we can be of further assistance.

Best regards,

A handwritten signature in black ink, appearing to read "David L. Larsen". The signature is fluid and cursive, with the first name "David" being more prominent.

David L. Larsen  
Managing Director

Phoebe W. Brown, Secretary  
Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, DC 20006-2803

3 November 2014

## **Re: Staff Consultation Paper: Auditing Accounting Estimates and Fair Value Measurements**

Dear Ms. Brown:

Ernst & Young LLP (Ernst & Young) is pleased to submit these comments to the Public Company Accounting Oversight Board (PCAOB or Board) on the *Staff Consultation Paper – Auditing Accounting Estimates and Fair Value Measurements* (the Consultation Paper). We are encouraged that the PCAOB has initiated this potential standard setting initiative with a staff consultation and believe it is a constructive way to seek initial stakeholder input earlier in the standard setting process, particularly in this complex area of auditing.

We support the PCAOB's efforts to evaluate whether existing standards on auditing accounting estimates and fair value measurements can and should be improved. We agree that "changes in financial reporting frameworks," "changes in methods" and the "growing reliance on the work of third parties" are reasons for taking a fresh look at the auditing standards<sup>1</sup> in this important area. We believe efforts to make improvements to the PCAOB standards in this area should seek to do all of the following:

- ▶ Align them with the risk assessment standards and eliminate duplicate risk assessment guidance
- ▶ Provide further clarity on which auditing standards apply in a given circumstance
- ▶ Provide improved guidance for addressing areas of significant risk in accounting estimates and fair value measurements
- ▶ Clarify how the auditor might consider and document potentially contrary information when evaluating the reasonableness of an accounting estimate or fair value measurement
- ▶ Clarify how the auditor might weigh the relevance of the various possible estimates or implied range of possible estimates as part of evaluating the reasonableness of the recorded estimate

We believe these objectives are consistent with the discussion at the recent meeting of the Standing Advisory Group.

---

<sup>1</sup> Consultation Paper, page 9



Our views regarding the staff's consideration of possible changes to the existing auditing standards are included below, organized into the following sections:

- ▶ Adoption of a Single Standard
- ▶ Management's Use of a Specialist
- ▶ Evaluating Reasonableness of an Accounting Estimate or Fair Value Measurement
- ▶ Use of Third Party Pricing Services
- ▶ Other Matters

Our views are designed to provide the staff with early input on potential implementation challenges we see with a few of the alternatives included in the Consultation Paper. We would be pleased to meet with the staff to further discuss the following views as well as how current audit practices have evolved in auditing accounting estimates and fair value measurements.

### **Adoption of a Single Standard**

One of the alternatives included within the Consultation Paper is developing a single standard that would supersede AU sec. 328, *Auditing Fair Value Measurements and Disclosures* (AU sec. 328), AU sec. 342, *Auditing Accounting Estimates* (AU sec. 342), and much of AU sec. 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (AU sec. 332). Although we believe there is opportunity to improve existing auditing standards as stated above, we are concerned that a single standard would not be able to effectively and fully consider the wide array of accounting estimates and fair value measurements that need to be addressed, and which may result in significant unintended consequences (e.g., guidance intended for auditing fair value measurements developed by third party pricing services is interpreted as applicable to a broad range of other estimates). Additionally, we are also concerned with the potential requirement to apply the procedures for testing the assumptions developed by a company specialist specified in AU sec. 328 more broadly to all accounting estimates.

#### *Proposed alternative*

We believe the use of a single standard to audit every accounting estimate and fair value measurement currently required by the existing accounting framework may not be the best approach. Rather than a single standard, we believe that multiple standards, or perhaps a single broad principles-based standard accompanied by more detailed auditing supplements tailored to the different facts and circumstances inherent in the specific estimate and valuation areas, may be a more constructive alternative.

The current accounting framework for developing accounting estimates and fair value measurements incorporates a wide range of estimate and valuation areas, valuation concepts, valuation methods, assumptions, other data inputs, and many of the resulting accounting estimates and fair value measurements reflect significant estimation uncertainty. Likewise, efforts to audit these accounts and activities can be quite varied and in our view, as discussed below, there can be a substantive difference between auditing a litigation reserve or a long-term asset retirement obligation and auditing a less liquid financial instrument.



### *Different objectives*

We believe the different accounting objectives for a fair value measurement and an accounting estimate under the existing accounting framework illustrate our view that the development of a single auditing standard is not the most appropriate approach. The objective of developing a fair value measurement is to determine the price at which an orderly transaction would take place between market participants under the market conditions that exist at the measurement date. Management assumptions about unobservable inputs are to reflect assumptions that market participants would use in developing the fair value measurement, rather than entity specific considerations. In contrast, an accounting estimate may be based on objective and subjective factors and frequently require significant management judgment about entity-specific factors such as future events, potential courses of action or historical experience.

In consideration of the different accounting objectives, current auditing standards indicate an important, and we believe appropriate, distinction in the auditor's objective when auditing a fair value measurement compared to an accounting estimate. AU sec. 328 states the auditor "should obtain sufficient appropriate audit evidence to provide reasonable assurance that fair value measurements and disclosures are in conformity with GAAP."<sup>2</sup> AU sec. 342 states the auditor "is responsible for evaluating the reasonableness of accounting estimates made by management in the context of the financial statements taken as a whole."<sup>3</sup> As such, we would recommend that the Board pursue an approach that would look at the audit of estimates and the audit of fair values separately.

### *Third-party pricing services*

Another illustration of potential problems arising from a single standard approach relates to third-party pricing services, an area of significant focus in the Consultation Paper. In our view, this is but one important area within the broad universe of accounting estimates and fair value measurements. We are concerned that the focus on third-party pricing services and "unobservable inputs" may result in the development of an auditing standard that does not deal effectively with other accounting estimates that are based, for example, on an entity's historical experience or that of the industry in which it operates. If the staff elects to proceed with developing a single standard, guidance related to narrow topics, such as third-party pricing services and industry-specific considerations for certain accounting estimates (e.g., asset retirement obligations, environmental reserves, oil and gas reserves) should be provided as supplemental application guidance, rather than in the potential new standard.

### **Management's Use of a Specialist**

The Consultation Paper discusses a potential requirement for the auditor to test information developed by a company's specialist related to accounting estimates as if it were produced by the company. We have several concerns about such a requirement, and believe that AU sec. 336, *Using the Work of a Specialist*, has an appropriate approach to using the work of management's specialist as audit evidence. However, before outlining some of our concerns, we provide a proposed alternative for your consideration.

---

<sup>2</sup> AU sec. 328, paragraph 3

<sup>3</sup> AU sec. 342, paragraph 4

### *Proposed alternative*

We believe the procedures related to management's use of the work of a specialist in AU sec. 336 represent an appropriate model when using the work of management's specialist as audit evidence. We also encourage the staff to consider International Standard on Auditing (ISA) 500, *Audit Evidence* (ISA 500) when identifying potential revisions to the standards. ISA 500 incorporates the requirements in AU sec. 336 to (1) evaluate the professional qualifications of the specialist, (2) evaluate the relationship of the specialist to the entity, (3) obtain an understanding of the nature of the work performed or to be performed by the specialist, and (4) perform procedures related to evaluating the findings of the specialist,<sup>4</sup> but provides additional application guidance for the auditor. For example, while AU sec. 336 includes a requirement to evaluate the qualifications of a specialist,<sup>5</sup> ISA 500 (which includes this same requirement), provides several paragraphs of additional application guidance for how to perform this evaluation.<sup>6</sup>

### *Risk of dissuading the use of specialists*

One concern about the requirements proposed in the Consultation Paper is that they would discourage the use of specialists by not recognizing the reduction in risk resulting therefrom. The use of a qualified specialist is frequently necessary to develop various accounting estimates and fair value measurements due to "the specialized nature of the subject matter, the technical nature of the models required, and/or the unusual or infrequent nature of the condition, transaction or event."<sup>7</sup> Accordingly, it is our view that management's decision to engage a specialist in these circumstances generally results in a more accurate application of the relevant financial reporting framework and a corresponding decrease in risk of misstatement in the financial statements. It would then be expected that the nature and extent of audit procedures to be performed would be reflective of this decreased risk.

ISA 500 recognizes this by including the concept that a company's failure to employ or engage specialists when requiring expertise in a field other than accounting or auditing increases the risk of material misstatement.<sup>8</sup> The potential requirements described in the Consultation Paper, however, do not appear to recognize the potential decrease in risk of material misstatement resulting from management's use of a specialist, and suggest adding incremental requirements for the auditor to test the information provided by the specialist as if it were produced by the Company.<sup>9</sup>

### *Risk of treating all specialists the same*

Another concern is that the potential requirement described in the Consultation Paper would appear to have all specialists be treated the same, whether employed or engaged by management, regardless of the results of the auditor's evaluation of the relationship of the specialist to the company required by AU sec. 336.<sup>10</sup> As described in AU sec. 336, "when a specialist does not have a relationship with

---

<sup>4</sup> AU sec. 336, paragraphs 8 – 12

<sup>5</sup> AU sec. 336, paragraph 8

<sup>6</sup> ISA 500, paragraphs A37 – A40

<sup>7</sup> ISA 540, paragraph A29

<sup>8</sup> ISA 500, paragraph A34

<sup>9</sup> Consultation Paper, page 38

<sup>10</sup> AU sec. 336, paragraph 10

the client, the specialist's work usually will provide the auditor with greater assurance of reliability.”<sup>11</sup> The potential requirement described in the Consultation Paper contradicts the reduction in risk resulting from using an external specialist who is further removed from potential management bias.

We also anticipate substantial application challenges with testing the information provided by external specialists as if it were produced by the company. The models used by specialists frequently are proprietary, which limits the auditor's access to certain information. Moreover, by their nature, specialists are engaged by management and auditors due to their special skill or knowledge in complex or subjective matters. As described in AU sec. 336, “the auditor's education and experience enable him or her to be knowledgeable about business matters in general, but the auditor is not expected to have the expertise of a person trained for or qualified to engage in the practice of another profession or occupation.”<sup>12</sup> In light of this, the auditor may not have the expertise to evaluate the information provided by the specialist except within the context currently described in AU sec. 336.

Given these challenges and constraints, the auditor may be more likely to engage another specialist to develop an independent estimate, rather than test the accounting estimate or fair value measurement developed by the company's specialist. Consequently, the company would incur both the costs of engaging a specialist to develop the accounting estimate and the auditor's costs to engage or employ a separate specialist to develop an independent estimate, perhaps without a corresponding increase in audit quality.

It is our experience that management's use of qualified specialists has served to reduce overall risk in the financial reporting process, particularly in areas that may require special skill or knowledge. We believe users of the financial statements would be better served by auditing standards that better describe how auditors can use the work of qualified and objective third-party specialists rather than to dissuade, or make more challenging, their use.

#### *Other opportunities for improvement*

There may be other opportunities, rather than amendments to the auditing standards, to improve an auditor's insight into the processes and procedures of valuation specialists. Currently, there is a project being led by several not-for-profit valuation professional organizations, to develop a proposal, in response to concerns expressed by the Securities and Exchange Commission, to create a “substantive professional infrastructure” governing the preparation of valuation estimates for “public interest” purposes. This proposal would address:

- ▶ Certification and renewal including education, experience and exam requirements
- ▶ Performance standards
- ▶ Quality review and discipline

It is our view that this project is a worthwhile initiative that could further enhance the auditor's ability to evaluate the qualifications and work of a specialist.

---

<sup>11</sup> AU sec. 336, paragraph 11

<sup>12</sup> AU sec. 336, paragraph 6

## **Evaluating Reasonableness of an Accounting Estimate or Fair Value Measurement**

We have several concerns related to the staff's indication that an amended or new standard may emphasize "that [an independent] estimate is limited to outcomes within the range that are supported by sufficient appropriate audit evidence."<sup>13</sup> These concerns are outlined below.

### *Estimation uncertainty*

We are concerned that such a statement may imply that estimation uncertainty is a function of the nature and extent of audit procedures, rather than an intrinsic characteristic of the estimate itself. We do not believe it is always possible, particularly with accounting estimates and fair value measurements that have higher estimation uncertainty and for particular industry-related estimates (e.g., certain insurance reserves, mortgage servicing rights), to narrow a range of reasonable outcomes below the auditor's established materiality threshold. While the wide range may serve to confirm higher estimation uncertainty and potentially a significant risk, we do not believe this should preclude the auditor, after performing sufficient appropriate procedures, including evaluating whether there are indicators of possible management bias, from concluding that management's accounting estimate is reasonable.<sup>14</sup>

We also do not believe the auditor could reasonably be expected to eliminate inherent estimation uncertainty through the performance of additional audit procedures. Extant guidance in AU sec. 328 states "The auditor is not responsible for predicting future conditions, transactions, or events that, had they been known at the time of the audit, may have had a significant effect on management's actions or management's assumptions underlying the fair value measurements and disclosures."<sup>15</sup> Therefore we do not believe that the subsequent outcome of a fair value measurement or an accounting estimate that deviates significantly from the recorded amount is an indicator of an audit failure. We recommend this guidance be retained in any revisions to the existing standards and be equally applicable to fair value measurements and accounting estimates.

### *Purpose of the auditor's procedures*

We have additional concerns about the implications of the statement described above on the purpose of the auditor's procedures when evaluating the reasonableness of an accounting estimate. As described in the Consultation Paper and reflected in AU sec. 342, when evaluating the reasonableness of an accounting estimate, the auditor should obtain an understanding of how management developed the estimate and, based on that understanding, use one or a combination of (1) review and test the process used by management to develop the estimate, (2) develop an independent expectation of the estimate to corroborate the reasonableness of the estimate, or (3) review subsequent events or transactions occurring prior to the date of the auditor's report to evaluate the reasonableness of the recorded estimate.<sup>16</sup>

---

<sup>13</sup> Consultation Paper, page 41

<sup>14</sup> ISA 540, paragraph .A94

<sup>15</sup> AU sec. 328, paragraph 5

<sup>16</sup> AU sec. 342, paragraphs 9-10

Whether using different assumptions to evaluate the sensitivity of the recorded estimate to alternative assumptions, or developing an independent estimate as part of using a combination of approaches, these procedures frequently can result in amounts that vary widely from the recorded estimate. While the auditor may choose to do so, we do not believe that executing one or a combination of the alternative approaches outlined in AU sec. 342 should be done with the intention of developing a range of reasonable estimates, nor do we believe the amounts calculated in these procedures implicitly suggest potential bias that is required to be evaluated as described in Auditing Standard No. 14, Evaluating Audit Results (AS 14).<sup>17</sup> We believe the alternative approaches described in AU sec. 342 are to aid the auditor in evaluating the reasonableness of the recorded estimate and that potential bias is one consideration when evaluating overall reasonableness.

#### *Proposed alternative*

If the staff believes that widely varying estimates using alternative approaches described in AU sec. 342 imply a range of possible estimates, we believe auditing standards should describe how the auditor should weigh the relevance of the various possible estimates or implied range as part of evaluating the reasonableness of the recorded estimate.

#### *Using independent estimates in combination with other evidence*

We also are concerned that such a statement would limit the auditor's ability to use an independent estimate in combination with one or more other approaches to evaluate the reasonableness of the recorded estimate. Frequently, management engages third-party specialists to develop complex accounting estimates and it is not necessary or feasible for the auditor to develop an independent estimate with the same level of detail as was employed by management's specialist. With this understanding, the auditor may use its independent estimate in combination with evidence provided by other approaches (including evaluating the work of the management specialist under AU sec. 336) to evaluate the reasonableness of the recorded estimate. We do not believe current auditing standards require the auditor to achieve a required level of evidence from a particular approach outlined in the current standards.

#### **Use of Third-Party Pricing Services**

As stated above, we believe it is important to get the balance right on how proposed changes in standards address the use of third-party pricing services and not unduly focus on them within the broad topic of auditing accounting estimates and fair value measurements. We agree with the staff's statement in the Consultation Paper<sup>18</sup> that third-party pricing services used by the auditor to obtain information that is developed for, and widely available to, the public should be differentiated from a third-party source used to generate an estimate specifically for the entity or for the auditor (i.e., a specialist).

Third-party pricing services generally provide independent pricing information free of influence from any one issuer (i.e., the same price is released to all customers without bias), and we believe that this distance from management bias could increase the relevance and reliability of the information and

---

<sup>17</sup> AS 14, paragraphs 25 - 27

<sup>18</sup> Consultation Paper, page 43

would be considered sufficient appropriate audit evidence. As a result, we do not agree with certain potential requirements described in the Consultation Paper to address the use of third-party pricing services, as detailed in the sub-sections below.

#### *Use of the Same Third-Party Pricing Service*

In the Consultation Paper, the staff indicates that if the third-party source used by the auditor is the same as the third-party source used by the company, the auditor should evaluate the audit evidence as if it were produced by the company, including testing data and evaluating the reasonableness of significant assumptions.<sup>19</sup> While auditors may use a different third-party pricing source to corroborate the price management obtained from its pricing source, we do not believe there should be an implicit requirement to do so. Auditors should be permitted to evaluate the relevance and reliability of the price obtained by management and to evaluate the need to perform additional procedures to obtain sufficient appropriate audit evidence in accordance with Auditing Standard No. 15, *Audit Evidence* (AS 15).

We believe extant guidance in AU sec. 332 also provides an appropriate model the auditor can use to determine whether additional procedures may be appropriate.<sup>20</sup>

#### *Evaluating Audit Evidence (Relevance and Reliability)*

We do not believe that requiring the auditor to evaluate the methods and assumptions used to determine the pricing for all classes of financial instruments is necessary. Financial instruments that are priced based on recent trading or observable market transactions for similar instruments and require no significant unobservable inputs to their valuation generally exhibit lower estimation uncertainty. These types of financial instruments may be subject to more simplistic models that are more closely aligned to observable market information and the auditor could perform simple procedures to substantiate the resulting pricing. Under these circumstances, the auditor could refer to AS 15 as the authoritative literature on the auditor's responsibility for evaluating the information.

However, for financial instruments priced using significant unobservable inputs, or that otherwise exhibit higher estimation uncertainty, it may be appropriate for the auditor to perform additional procedures to understand and evaluate the relevance and reliability of the information obtained from the third-party pricing service. When determining the additional procedures to perform, the auditor considers various factors, including, but not limited to, those provided in the Consultation Paper.<sup>21</sup> The procedures ultimately selected by the auditor should be tailored to the overall circumstances.

We encourage the staff to align potential revisions to the standards on this topic with the existing guidance in the PCAOB's risk assessment standards. Further, as the staff acknowledges in the Consultation paper, there may be limitations in testing data obtained from certain third-party sources for completeness and accuracy<sup>22</sup> (e.g., while issuers and auditors are generally given the opportunity

---

<sup>19</sup> Consultation Paper, page 44

<sup>20</sup> AU sec. 332, paragraph 38

<sup>21</sup> Consultation Paper, pages 45-46

<sup>22</sup> Consultation Paper, page 40

to obtain an understanding of a third-party pricing service's valuation process, they may not be permitted access to proprietary information). We also encourage the staff to consider these limitations when identifying potential revisions to the standards.

## Other Matters

### *Understanding Processes Used to Develop Accounting Estimates*

We recommend that the staff provide additional clarification regarding the potential requirement to obtain an understanding of the processes used to develop accounting estimates, as it relates to the extent to which the company uses a third party or information provided by a third party in developing the accounting estimates.<sup>23</sup> This could be interpreted as a requirement for the auditor to obtain an understanding of and test the internal control environment of the third party. We do not believe such a requirement is necessary as the third party providing the information is not an integrated part of the company's information system. We believe the current construct for evaluating relevance and reliability of evidence described in AS 15 continues to be appropriate in these circumstances.

### *Evaluating the Company's Method Used to Develop an Accounting Estimate*

The Consultation Paper suggests the auditor should evaluate whether the methods used by the company are accepted within the company's industry.<sup>24</sup> This language differs from the existing requirement in AU sec. 328, which states that the auditor should *consider* whether the valuation method is appropriate in relation to the business, industry, and environment in which the entity operates.<sup>25</sup> It is our view that a requirement to draw a conclusion on whether the method is "accepted" within the company's industry could lead to challenges in practice. What is meant by "accepted"? What standards, criteria or framework should be employed in making this determination? The approach might also lead to some unintended consequences, such as impacting management's ability to use a method that might be viewed to be outside of the industry norm, but which may be a more appropriate application of the financial reporting framework to the entity's specific facts and circumstances. While we agree that accounting practices in a company's industry is an important data point when evaluating the appropriateness of the company's method, we believe this factor should be balanced with others that may be applicable to a particular estimate.

### *Identifying Significant Assumptions*

The Consultation Paper describes a potential requirement to identify significant assumptions not identified by management. As acknowledged within AU sec. 328, the purpose of evaluating significant assumptions is to determine whether "the significant assumptions used by management in measuring fair value taken individually and as a whole, provide a reasonable basis for the fair value measurements and disclosures,"<sup>26</sup> and "the objective of the audit procedures is not to provide an opinion on the assumptions themselves."<sup>27</sup> ISA 540 requires that the auditor evaluate "whether the

---

<sup>23</sup> Consultation Paper, page 24

<sup>24</sup> Consultation Paper, page 33

<sup>25</sup> AU sec. 328, paragraph 18

<sup>26</sup> AU sec. 328, paragraph 28

<sup>27</sup> AU sec. 328, paragraph 32



assumptions used by management are reasonable in light of the measurement objectives of the financial reporting framework,"<sup>28</sup> as well as "how management has considered alternative assumptions or outcomes, and why it has rejected them, or how management has otherwise addressed estimation uncertainty in making the estimate."<sup>29</sup>


We recommend the staff consider these requirements as an appropriate model for the auditor's responsibilities associated with significant assumptions.

\* \* \* \* \*

As the staff considers comments received, we encourage consideration of whether amending the auditing standards will address all challenges in these potentially complex areas. For instance, calls for additional transparency about accounting estimates, including fair value measurements, may be better addressed through changes to the financial reporting framework and disclosures.

We would be pleased to discuss our comments with members of the Board or its staff.

Respectfully submitted,



cc:

**PCAOB**

James R. Doty, Chair  
Lewis H. Ferguson, Board Member  
Jeanette M. Franzel, Board Member  
Jay D. Hanson, Board Member  
Steven B. Harris, Board Member  
Martin F. Baumann, Chief Auditor

**SEC**

Mary Jo White, Chair  
Luis A. Aguilar, Commissioner  
Daniel M. Gallagher, Commissioner  
Michael S. Piwowar, Commissioner  
Kara M. Stein, Commissioner  
James Schnurr, Chief Accountant  
Brian T. Croteau, Deputy Chief Accountant  
Julie Erhardt, Deputy Chief Accountant  
Daniel Murdock, Deputy Chief Accountant

---

<sup>28</sup> ISA 540, paragraph 13(b)(ii)

<sup>29</sup> ISA 540, paragraph 15(a)





# Federal Housing Finance Agency

Constitution Center

400 7<sup>th</sup> Street, S.W.

Washington, D.C. 20024

Telephone: (202) 649-3800

Facsimile: (202) 649-1071

[www.fhfa.gov](http://www.fhfa.gov)

November 3, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, DC 20006-2803

**Re: Staff Consultation Paper  
Auditing Accounting Estimates and Fair Value Measurements**

Dear Office of the Secretary:

The Federal Housing Finance Agency (FHFA or Agency) welcomes the opportunity to comment on the Public Company Accounting Oversight Board's (PCAOB or Board) Staff Consultation Paper on *Auditing Accounting Estimates and Fair Value Measurements*, released on August 19, 2014.

FHFA is the prudential supervisor for Fannie Mae, Freddie Mac, and the Federal Home Loan Bank System. It also is the conservator for Fannie Mae and Freddie Mac. Accounting estimates and fair value measurements involve a high degree of subjectivity and judgment and are significant inputs to the financial statements of our regulated entities. In addition, these estimates and fair value measurements may be more susceptible to misstatement and generally require more auditor focus, as evidenced by the significant audit deficiencies noted by the PCAOB in its inspection process. Therefore, FHFA considers it prudent standard setting to update the PCAOB standards in this area, and we support the effort to address the auditing of accounting estimates and fair value measurements.

However, because of the pervasiveness of estimates included in financial statements and the challenge in trying to develop a single standard to address all of the issues identified by the staff, we encourage the PCAOB to carefully evaluate the scope and approach for updating the auditing standards. We recommend that the PCAOB adopt a phased approach to updating the auditing standards, rather than proposing a single standard. FHFA believes a phased approach would allow the PCAOB to focus on providing timely updates to address the most urgent PCAOB inspection deficiencies. Updated guidance for lower priority issues could then be developed in a prioritized and targeted manner and Staff Guidance could be issued in the interim as needed. This approach might alleviate some of the risk in trying to issue a new single standard in a timely manner. We also believe that a phased approach would have the advantage of forming a more

robust consensus for practitioners in the industry and allow the PCAOB to build an incremental foundation of updated auditing standards.

Thank you for the opportunity to provide the Agency's views on the Board's proposals. FHFA hopes the Board and staff will find these comments and recommendations helpful. If the Board or staff has any questions regarding this letter, please feel free to contact me at 202-649-3450.

Sincerely,



Nicholas J. Satriano  
Chief Accountant and Senior Associate Director - Office of Risk Analysis  
Federal Housing Finance Agency



Office of the Secretary  
PCAOB

Submitted via email:  
[comments@pcaobus.org](mailto:comments@pcaobus.org)

30 October 2014

Ref.: AUD/AKI/HBL/NRO/HBU/EBL

Dear Sir or Madam,

**Re: FEE comments on the PCAOB Staff Consultation Paper: “Auditing Accounting Estimates and Fair Value Measurements”**

FEE (the Federation of European Accountants) welcomes the opportunity to comment on the PCAOB Staff Consultation Paper: “Auditing Accounting Estimates and Fair Value Measurements” (hereafter referred to in this letter as “Consultation Paper”). Our main comments are summarised hereafter.

**General Comments**

Given the deficiencies detected in audit inspections in the area of audits of accounting estimates and fair value measurements, and the fact that PCAOB standards covering this subject matter have not been revised recently, FEE commends the PCAOB for undertaking this project and seeking stakeholder’s views with this Consultation Paper.

FEE welcomes the idea of developing a specific standard dedicated to this subject matter. However, this task should be undertaken cautiously keeping in mind the following:

- If there is one standard covering the whole subject matter, it will need to contain high level principles and allow practitioners to use a level of judgement to adapt their work depending on the nature of the estimates and fair value measurements to be audited. FEE is in favour of a principles-based rather than a rules-based standard as it might better accommodate a variety of different situations as well as innovation in auditing. There is also a danger that if the standard becomes over-engineered, the public expectations may become unrealistic in relation to the auditor's ability to obtain evidence for what remain subjective estimates.



- In some cases, it would also be welcomed to include a level of 'conditionality' in those requirements which are not applicable in all circumstances. ISA 540<sup>1</sup> *Auditing Accounting Estimates, including Fair Value Estimates, and Related Disclosures* managed to bring these two areas together: it is a high level standard in which guidance is developed in a sufficient level of detail as needed.
- It is worth noting that the concept of 'challenging management' when auditing accounting estimates and fair value measurements does not appear in the Consultation Paper. In our view, this aspect is essential in dealing with this topic and FEE would therefore encourage the PCAOB to emphasise more the due process to be applied in the proposed standard, to correctly apply professional judgments, having the right state of mind etc. to support third-party evidence.
- It would be helpful if the new PCAOB standard could be aligned with the IAASB standard ISA 540 *Auditing Accounting Estimates, including Fair Value Estimates, and Related Disclosures*. In general, the right balance will have to be found between applying principles and requiring auditors to undertake certain detailed procedures. The priority should be that both standards remain consistent with each other.

FEE has been consistently advocating for the alignment of auditing standards globally to the maximum extent possible that enhances both the quality of audits and the acceptance of audit work globally.

Our detailed responses to the questions stated in the Consultation Paper are set out below. For further information on this FEE<sup>2</sup> letter, please contact Hilde Blomme on +32 2 285 40 77 or via email at [hilde.blomme@fee.be](mailto:hilde.blomme@fee.be) or Noémi Robert on +32 2 285 40 80 or via email at [noemi.robert@fee.be](mailto:noemi.robert@fee.be) from the FEE team.

Yours sincerely,

André Killesse  
FEE President

Olivier Boutellis-Taft  
FEE Chief Executive

<sup>1</sup> A revision of ISA 540 is not mentioned in the [IAASB strategy and work programme](#), but some amendments are in consideration against the backdrop of the use of professional scepticism and the audit of financial institutions. Reference is made to pages 27 and 32.

<sup>2</sup> FEE is the Fédération des Experts comptables Européens (Federation of European Accountants). It represents 47 professional institutes of accountants and auditors from 36 European countries, including all of the 28 European Union (EU) Member States. In representing the European accountancy profession, FEE recognises the public interest. It has a combined membership of more than 800,000 professional accountants, working in different capacities in public practice, small and big firms, government and education, who all contribute to a more efficient, transparent and sustainable European economy.



## **Appendix: Responses to Questions**

### **Questions 1-3: Current Requirements and Certain Audit Practices**

The information included in the Consultation Paper satisfactorily reflects the current audit practice. FEE agrees with the PCAOB that it is not acceptable for the auditor to take valuations at face value without further investigation.

The Consultation Paper mentions that many firms with international audit practices are familiar with and use ISA 540<sup>3</sup>. As referred to above in our general comments, it would be very helpful if both PCAOB and IAASB standards could be consistent with each other. ISA 540 was updated more recently than the PCAOB standards and consistency of both sets of standards would enhance both the quality of audits and the acceptance of audit work globally.

When considering standard setting in this area, we would like to emphasise that guidance provided by standards that are aimed at being applied internationally should not be turned into a set of excessive additional requirements. The right balance will have to be found between applying principles and requiring auditors to undertake certain procedures. We do not believe that auditing standards need to address issues relating, for instance, to national level pricing desks. They are essentially issues of methodology and are not relevant to the development of auditing standards.

### **Questions 4-9: Staff consideration of Alternative Approaches**

FEE welcomes the idea of developing a single standard dedicated to this subject matter. However, if there is one standard covering the whole subject matter, it will have to contain high level principles and allow practitioners to use judgement to adapt the work depending on the nature of the estimates and fair value measurements to be audited. In some cases, it would also be welcomed to include a level of “conditionality” in those requirements which are not applicable in all circumstances.

We note in our general comments in the covering letter that we support international harmonisation to the maximum extent possible. The success of the IAASB standard ISA 540 is linked to the application of the principles-based approach with high level requirements supported by non-mandatory application material, and in this case also a practice note, IAPN 1000.

---

<sup>3</sup> A revision of ISA 540 is not mentioned in the [IAASB strategy and work programme](#), but some amendments are in consideration against the backdrop of the use of professional scepticism and the audit of financial institutions. Reference is made to pages 27 and 32.





It is worth noting that the concept of “challenging management” when auditing accounting estimates and fair value measurements does not appear in the Consultation Paper. In our view, this aspect is essential in dealing with this topic and FEE would therefore encourage the PCAOB to emphasise more the due process to be applied in the proposed standard, to correctly apply professional judgments, having the right state of mind etc. to support third-party evidence.

#### **Questions 10-16: Identifying and Assessing Risk of Material Misstatement**

FEE supports that the specific risk assessment requirements and procedures associated with accounting estimates and fair value measurements be included in AS No.12. The potential amendment to AS No. 12 described in the Consultation Paper is appropriate and might also refer to fair values.

FEE does not support the inclusion of “presumed significant risks”. If the standard includes a presumption, it should be a rebuttable presumption. The wording used in question 16 appears to be taking away auditor judgment when assessing whether a significant risk actually exists or not.

#### **Questions 17-21: Responding to the Risks of Material Misstatement**

FEE does not consider it appropriate to include specific procedures for the audit of disclosures relating to accounting estimates (we refer specifically to question 19 in this respect) given the fact that it removes the use of auditor judgement.

In addition, there is a risk that it will result in an outdated standard given the frequent changes occurring in disclosure requirements. Principles-based standards that can accommodate changes in accounting standards are preferable.

#### **Questions 22-24: Substantive Procedures for Testing Accounting Estimates**

The auditor’s selection of approaches related to testing accounting estimates is important. Where there is a choice between developing an independent estimate, reviewing subsequent events or performing work on management’s process, the latter is often chosen. It might be helpful to suggest that this is not always the most appropriate approach and that professional scepticism should be demonstrated by challenging rather than seeking corroborative evidence only. Nevertheless, we do not believe that auditing standards should attempt to cover all eventualities in this level of detail.

#### **Questions 25-31: Testing the Company’s Process**

Generally speaking, it is difficult to argue against the “best practices” as included in the grey boxes on pages 33 and 35 of the Consultation Paper. An issue would arise if all these proposals were included as requirements for all types of accounting estimates: it would be an additional unnecessary burden that will not enhance the quality of audit evidence.



For an actuarial valuation, following the requirements included in the grey box on page 33 would not be an issue. However, it could be a challenge in other circumstances, for instance for unique products or for instruments where valuation assumptions and models are not shared or where internal models had or would need to be developed.

In connection with evaluating assumptions as elaborated in the grey box on page 37, the Consultation Paper refers to both “minor variation in the assumption” and further to “significant assumptions”. This wording inconsistency could lead to some confusion in practice as to how much attention the auditor must pay to what information, i.e. at what level should the bar be set. It might be clearer if the term ‘material’ was used. We are indeed concerned that the list on page 37 may result in too many assumptions being identified as significant simply because they meet one of the characteristics listed. In practice, this may not have a material impact on the estimate or fair value measurement. In such circumstances, it would not be effective for the auditor to be required to perform audit procedures on such assumptions.

The proposed text on page 38 that requires information produced by a specialist to be treated as if it had been produced by the company effectively ignores the fact that a specialist does not ordinarily form part of the company. Instead, we believe that the focus should be on understanding the independence and objectivity of the specialist and the process that was put in place to develop the estimate.

### **Questions 32-35: Developing an Independent Accounting Estimate**

Auditors often develop “a range” of acceptable estimates or fair value measurements, but developing an independent accounting estimate by the auditor, as referred to in the Consultation Paper, might not be the best way forward.

We would prefer a methodology that develops a hierarchy of approaches and a scaled audit response. Emphasising the need to challenge the estimate provided by the entity is an important step forward<sup>4</sup>: the auditor will have to question its reasonableness, benchmark it and compare the amount to a realistic scale for a given industry and instrument. Having said that, it might sometimes also be difficult for the auditor to find other sources of information, benchmark this information or compare the amount to a realistic scale for a given industry. This is the reason why FEE would not completely rule this independent estimate out of the standard as this solution might be needed to perform a proper evidence-based audit.

---

<sup>4</sup> Reference is made to ISA 620 *Using the Work of an Auditor's Expert*. Consideration might also be given to ISA 220 *Quality Control for an Audit of Financial Statements* that deals with situations where the engagement team includes a member, or consults an individual or organization, with expertise in a specialized area of accounting or auditing and ISA 500 *Using the Work of a Management's Expert*.



### **Questions 36-37: Evaluating Audit Evidence from Subsequent Events**

FEE agrees that subsequent events or transactions occurring after the balance-sheet date should be addressed by the PCAOB Standard. The requirements described in the Consultation Paper appear adequate. An important caveat is that subsequent events should only be taken into account to the extent that it is permitted by the accounting principles relevant to the estimate in question.

### **Questions 38-43: Use of Third Parties**

Regarding the information provided by third parties, we would like to promote the guidance provided by ISA 620<sup>5</sup> that properly reflects the actual needs and practices of the profession, this standard having been recently revised.

Additionally, according to the Consultation Paper as stated in the grey box on page 44, if the third party providing information to the auditor is the same party that provides the information to the entity, the information should be dealt with as a piece of information provided by the entity. In our opinion, the auditor should understand how the calculation is done. If the auditor is satisfied and if the expert is competent, independent and objective, ignoring the fact that it is third-party information is a step too far. As proposed in the Consultation Paper, it seems that the same rules would apply when the entity uses an internal actuary rather than an external actuary.

### **Questions 44-45: Economic Impacts**

Whilst it is difficult to provide specific comments given that the incremental work required will depend upon the specific facts and circumstances, we would like to volunteer some general observations as follows:

- A detailed list of requirements to be applied in all situations will most probably result in a “check the box approach” that will increase costs but not necessarily improve quality;
- The proposed approach to effectively ignore the competence and objectivity of third parties, and instead, treat information produced by them as if produced by the company will increase costs as well as be potentially impractical.

---

<sup>5</sup> Using the Work of an Auditor's Expert accessible at : <http://www.ifac.org/sites/default/files/downloads/a035-2010-iaasb-handbook-isa-620.pdf>





102 Mendoza College of Business  
Notre Dame, Indiana  
46556-5646 USA

MENDOZA COLLEGE OF BUSINESS  
DEPARTMENT OF ACCOUNTANCY

Telephone (574) 631-7324  
Facsimile (574) 631-5544  
Web site [www.nd.edu/~acctdep](http://www.nd.edu/~acctdep)

November 1, 2014

Public Company Accounting Oversight Board  
Attention: Office of the Secretary  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**RE: Staff Consultation Paper: Auditing Estimates and Fair Value Measurements**

Members of the Board,

I appreciate the opportunity to submit my comments to the Board with respect to the *Proposed Auditing Standards – Improving the Transparency of Audits: Proposed Amendments to PCAOB Auditing Standards to Provide Disclosure in the Auditor’s Report of Certain Participants in the Audit*. I retired from public accounting in 2007 after 27 years at Deloitte & Touche LLP and am currently a full-time faculty member at the University of Notre Dame teaching undergraduate and graduate courses in accounting and auditing.

Public perception to the contrary, the Board does not have unlimited resources. As I have stated on previous occasions, I believe it is unfortunate that the Board elected to exercise its standard setting role related to generally accepted auditing standards directly rather than indirectly as the Securities and Exchange Commission has done with respect to the establishment of generally accepted accounting principles. The Board’s staff is now beginning a process of reconsidering old auditing standards that the AICPA and IAASB revised more than two years ago; auditors of private companies are now conducting their third annual audits under these new, AICPA/IAASB standards. In fairness, however, to the extent the new standards required auditors to improve their audit procedures, those auditors are already applying the improved practices in audits of registrants; in my experience, audit firms do not establish different audit approaches for different regimes but strive to meet the most stringent of competing standards. Accordingly, the audits inspected by the Board’s examiners in the 2013 inspection cycle should already reflect any such changes in procedures required because of the revised AICPA and IAASB standards.

I do not believe a project to rewrite or combine standards AU 328 and AU 342 is an effective use of the Board’s limited resources. The Board could accomplish its goals by adopting AU-C 540 as permitted by Section 103(a) of the Sarbanes-Oxley Act of 2002 and considering the additions necessary to make that published standard more effective for audits of registrants. Furthermore, I recommend the Board’s staff consider all the standards issued under the IAASB/AICPA’s Clarity Project and adopt those it considers appropriate rather than spending the next several years going through an exercise of amending or rewriting other old or outdated auditing standards. By relying on the private sector to do the “leg work” in the standard setting arena, as the SEC does for generally

accepted accounting principles, the Board could concentrate on issues broader than individual auditing standards and the staff could focus on any necessary incremental additions to AICPA/IAASB standards. For example, the AICPA Clarified Standards are not adequate for audits of internal control. If the Board were to adopt the Clarified Standards in the area of auditing estimates and fair value measurements, the staff would be free to focus its efforts on the adequacy of AS No. 5 with respect to the auditing of controls over estimates and fair value. I believe this would be a much more efficient and focused use of the Board's resources. Furthermore, over time, the experiences of the Board's inspection teams would serve to identify shortcomings in the basic, Clarified Standards the Board could address by publishing add-ons to the Clarified Standards. The Board could publish "Staff Auditing Bulletins" rather than undertaking complete re-writes of those standards as the SEC does with its Staff Accounting Bulletins that serve to interpret and enhance financial reporting standards.

This approach would also simplify the education and training of auditors both in school before they enter the profession and at their firms as their careers progress. The existence of competing, parallel standards for public and private companies adds unnecessary complexity to the education of college students for entry into the profession. Competing standards may also add to the perception that the PCAOB is an adversary of the profession. During my years in the profession, I did not view the SEC as an adversary; we all respected its people their expertise and their professionalism. In practice we viewed the need to have financial statements conform to Regulation S-X or some accounting treatment conform to a particular SAB as a sign of the superior quality of public reporting over private reporting. I believe the Board could achieve the same perception with respect to audits of public companies over audits of private companies.

On another matter, as noted above I have been teaching full time since 2007. Complexities of Fair Value reporting, the financial crisis, and changes in structures of firms have happened during these past seven years. Students still must meet minimums to sit for CPA exam, but those minimums have not changed appreciably to meet the increased complexity of accounting and auditing. Students can complete their college educations and take the CPA examination without any meaningful training in derivatives, hedging, fair value reporting or other complex areas whether it be accounting for them or auditing them. The Board has published no standards or other guidelines that specify the amount of training necessary to perform anything from a walk-thru to substantive testing.

Senior technical personnel in firms are competent in areas such as accounting for financial instruments or auditing fair value estimates; they have developed those competencies over years of service. Those professionals are the ones who teach the continuing education courses, but they do not conduct the audits themselves. Experienced personnel in firms attend continuing education but my experience is that those courses do not require demonstration of any mastery of the material covered. PCAOB inspections and firm internal inspections may identify individuals who do not demonstrate sufficient technical proficiency for a given area, but those identifications are after-the-fact. The PCAOB should consider undertaking a project to identify and evaluate the "best practices" its inspection teams have seen with respect to training for assignment in certain industries and technical areas not only as supervising partners, but also as auditors performing substantive tests and tests of controls.

My responses to selected questions are set forth in the enclosed appendix. I appreciate the opportunity to offer my comments.

Sincerely,

S/ James L. Fuehrmeyer, Jr.

James L. Fuehrmeyer, Jr. MBA, CPA  
Associate Teaching Professor

## Appendix – Responses to staff questions

*1. Does the information presented above reflect aspects of current audit practice? Are there additional aspects of current practice, of both larger and smaller audit firms – including centralized testing, the use of third parties, or specific challenges to auditing accounting estimates and fair value measurements – that are relevant to the staff's consideration of the need for standard setting in this area?*

The practices noted by the staff are consistent with my experience. Additionally, I believe that audit firms with sufficient personnel to do so have instituted training and experience requirements for those directly responsible for conducting audit procedures related to fair value and estimates as well as those who review that work. However, I also suspect it is rare that those auditors who perform audit procedures on the internal controls over fair values and other estimates possess levels of expertise similar to those who perform substantive tests of those same areas. Furthermore, the involvement of these national level specialists is dependent on those performing audits determining that they need to consult with them. In response to this, firms have instituted continuing education courses to familiarize their audit personnel with these complex areas but, in my experience, there is no meaningful process to ensure these auditors demonstrate proficiency with the subject matter.

*2. The staff understands differences may exist in the use of centralized or national-level pricing desks at audit firms. The staff is interested in current practice for interaction between national-level pricing desks and engagement teams. For example, how (and by whom) are national-level pricing desks supervised given the engagement partner's responsibility under the risk assessment standards? How should these considerations affect auditing standards?*

As an engagement partner and quality control reviewer, I supervised many professionals including valuation specialists, financial instrument specialists, actuaries, tax specialists, internal control specialists, computer technology specialists, and fraud specialists. The tone of the staff's question implies that an engagement partner must be a specialist in all these areas in order to carry out his or her responsibilities under AS No. 10. The engagement partners must rely on their firm's ability to hire appropriately skilled specialists and on the firm's internal quality control structure in which other partners or senior technical personnel within those specialties supervise and review the work of the firm's specialists. With respect to consideration in auditing standards, the Board could adopt AU-C 620, "Using the Work of an Auditor's Specialist", and augment that standard with any additional requirements it believes applicable to registrants, particularly with respect to the specialists' participation in the audits of controls.

*3. What other issues relevant to the need for standard setting should be considered by the staff?*

The stated purpose behind H.R. 3763 is "To protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws and for other purposes". I submit that the primary means to improve accuracy and reliability is to improve the quality of the information before it gets to the auditor. The staff is properly focused on improving the quality of independent audits, but those audits are additive to the quality of registrants' financial reporting systems. The auditor and the PCAOB can have a positive impact on that level of quality in registrants' systems by demanding better processes and controls over complex estimates, particularly at registrants who engage in practices beyond the expertise of their personnel. The staff states in footnote 23 that the three most difficult areas for auditors are fair value measurement, audits of internal control, and financial statement disclosure. I believe the auditors' effectiveness in these areas is directly dependent on the competency of management.

Accordingly, I believe the staff should consider the adequacy of AS No. 5 with respect to tests of controls related to fair values and estimates. In particular, the staff should consider whether the absence of personnel who are qualified to make fair value and other complex estimates, or who have sufficient experience to supervise third parties who perform those functions for the registrant, are indicators of a material weakness. Furthermore, the staff should consider whether there should be particular expertise required of those who perform tests of ICFR related to fair value and other complex estimates. State requirements to take the CPA examination

vary but none requires coverage of specific topics such as accounting for complex financial instruments or auditing fair value estimates. Though most states now require 150 hours of college credits, many students meet those hours with high school advanced placement courses in non-business disciplines. Some states require more hours of accounting courses than others but many left the accounting and business hours component unchanged at the time they adopted the 150-hour requirement. Even when there are requirements in those areas, the passing score on the CPA exam is still a 75. While this may be sufficient to enter into the profession, if there is no actual improvement beyond the basic level of expertise and education throughout the career, it is not clear how this is sufficient to conduct audits of registrants particularly audits of complex areas.

*4. Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included within a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?*

As the Board notes, there are differences in complexity; Level 3 financial instruments are inherently more difficult to audit than the allowance for doubtful accounts not only because the fair value models contain more variables but because the volatility in those estimates caused by small changes in those variables can materially impact the registrant's financial statements. The balances and transactions related to complex financial instruments are generally very large and the variables involved can change abruptly; they are outside of everyone's control. Sometimes, as with the recent revelations about manipulations of LIBOR, those variables are not only volatile but potentially unreliable.

However, even the simplest accounts have inherent difficulties. I suspect the Board's inspection teams rarely examine the audit work related to property and equipment. The amount recorded for straight-line depreciation of a major piece of equipment that has a 20-year life is dependent entirely on that estimated useful life and the equipment's estimated salvage value. While most auditors would consider auditing depreciation expense an easy area, I submit there is no objective, reliable evidence to support management's assertion that the useful life of that item will be 20 years. The fact that in prior years the registrant used similar items of equipment for 20 years is not proof that it will use this item for 20 years. An inspector examining this audit area could reasonably conclude that the auditor had no evidence beyond inquiry of management to support its conclusion that the depreciation expense recorded for this item is appropriate. That being said, it is still more difficult to audit financial instruments than to audit property.

While procedures related to all estimates could be included in a single standard, having them in separate standards would give more attention to auditing fair value. Additionally if the Board went down the path of adopting AU-C 540 it could readily add an enhanced standard to address the procedures required for audits of fair value and similar complex areas. While relatively straightforward estimates such as useful lives or allowance for doubtful accounts receivable might lend themselves to efficient testing by means of the auditor developing its own estimate, I believe that in the interest of improving financial reporting and increasing the quality of audits, the standard should require that the auditor test management's process for developing complex estimates. An additional requirement such as this if presented in a separate enhancing PCAOB standard would clearly highlight what the Board expects of auditors who serve registrants and would clearly set forth the additional work that would be required to audit a private company in the process of becoming a registrant for the first time.

*5. Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition, that the staff should specifically take into account in developing a potential new standard?*

The accounting framework is becoming more subjective as it evolves away from simple historical cost. For example, variable consideration in revenue contracts under the new standard will include management's determination of the amounts it expects to receive. This involves the assignment of subjective probabilities to various outcomes that will be difficult for the auditor to verify. The FASB emphasizes relevance of information suggesting it is more important than the absolute verifiability of that information. The FASB appears willing allow for more subjectivity in financial statements in the interest of increased availability of information.

I believe the FASB will increase the number of instances that require management to make estimates based either on its expectations or its intent, both of which do not readily lend themselves to the sort of objective audit procedures the Board has in mind. However, information based on management's expectations or intent is still relevant as the ultimate realization of those estimates gives users information about management's ability as well as its character. Auditors should be required to perform retrospective analyses of estimates to monitor how those estimates have been realized, to develop information about management's ability to make estimates, and about the biases inherent in those estimates. I submit that management that is consistently low or consistently high in its estimates is less risky than one who swings between high and low when it suits its purpose in achieving desired earnings targets.

*6. Are there other considerations relating to the alternatives explored, including other alternatives not discussed in this paper, that the staff should consider in connection with this project?*

The staff has not discussed the alternative proposed above, namely that the Board adopts AU-C 540 and the staff develops an enhancing standard to accomplish the desired level of auditor proficiency for public companies. The staff discussion speaks to eliminating redundancy and confusion as well as promoting more consistent auditor performance; building off the AICPA standards appears to be a more logical means of accomplishing that and should be presented to the Board as an option for its consideration.

*7. Omitted*

*8. If AU sec. 332 were to be superseded, are there elements that should be retained? With respect to derivatives and securities, are there enhancements related to auditing assertions other than valuation that the staff should consider?*

The Board should adopt AU-C 501 and add to that standard as necessary. Additionally, the Board should reconsider AS No. 5 and add specific requirements for tests of controls of derivative financial instruments and other complex areas. In particular, the Board should consider requiring interim period audits of controls and substantive testing of complex fair value estimates. These complex instruments can have a serious impact on quarterly financial reporting. While auditors do not have to report on controls as of the ends of quarters, the Board should consider requiring auditors to test controls over these and other complex instruments at the ends of one or more quarters. For example, registrants must report derivative instruments at fair value at the ends of each of the interim quarters and the controls over that reporting should be no different at those periods than they are at the end of the fiscal year. Identifying weaknesses and reporting them to the Audit Committee earlier would help improve annual financial reporting.

*9. Are there considerations relevant to auditing accounting estimates and fair value measurements including other regulatory requirements specific to certain industries that the staff should take into account?*

The staff should consider AU-C 9500, "Audit Evidence – Auditing Interpretations of Section 500" with respect to the audits of accounting, disclosure and control of uncertain tax positions. These are often highly material, sometimes emotional accounts and the impact of third party tax advisors and outside counsel is significant. Auditors' interactions with these parties are difficult at times due to the impact of attorney-client privilege and the shadow of the Internal Revenue Service; both put additional pressure on management to withhold information from auditors. In its standard, the AICPA discusses the difficulties in auditing these accounts and the occasional need to consider the existence of a scope limitation. Such a situation would put even more pressure on auditors of registrants due to their inability to issue a qualified opinion for filing with the SEC.

*10. Should the requirements for identifying and assessing risks of material misstatement with respect to accounting estimates and fair value measurements – including risk assessment procedures – be included in Auditing Standard No. 12 or be separately set forth in a potential new standard on auditing accounting estimates?*

In comparison, the AICPA includes general risk assessment in AU-C 315, “Understanding the Entity and Its Environment and Assessing the Risk of Material Misstatement” and includes risk response in AU-C 330, “Performing Audit Procedures in Response to Assessed Risks and Evaluating the Audit Evidence Obtained”. It then includes specific risk and responses related to estimates and fair value in AU-C 540. As noted above, the Board could save considerable time by adopting the AICPA Clarified Standards and augmenting them with specific additional procedures it believes necessary for audits of registrants.

*11. Omitted*

*12. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other matters relevant to understanding the process used to develop accounting estimates or fair value measurements that could be included in Auditing Standard No. 12?*

The requirements in AU-C 540.08 related to risk assessment and understanding the process are more extensive than the proposed amendment to AS No. 12. As suggested above, the Board should adopt AU-C 540 and augment it if necessary. In particular, the Board should require the auditor to evaluate the competency of registrant personnel and/or third parties who prepare these estimates and the competency of management personnel who supervise them.

*13. In circumstances where the company uses information obtained from a third party, are there matters— such as information systems at third parties, controls that management has over the work of third parties, and controls at third parties— not currently addressed in AU sec. 324, Service Organizations, or other standards that the staff should consider?*

The staff should address those circumstances where the registrant uses information obtained from attorneys and from tax advisors. Deficiencies in audits of fair value of financial instruments and of complex estimates frequently appear in PCAOB inspection reports; deficiencies in auditing uncertain tax positions or in evaluating attorney’s evaluations of litigation exposures seem to be less common. The staff should also consider the adequacy of AS No. 5 and the auditors’ tests of controls related to these estimates.

*14. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other factors that would be relevant in the auditor’s evaluation of the degree of complexity of judgment in the recognition or measurement of an accounting estimate or fair value measurement (e.g., the use of a third party for the determination of a price)?*

See the response to Question 12, above.

*15. Omitted*

*16. Are there certain types of accounting estimates or fair value measurements that should be presumed to be significant risks?*

The auditors should presume a significant risk in all situations where the registrant does not have appropriate in-house expertise. While some might suggest that certain estimates are inherently more complex and auditors should presume they are significant risks, I believe this should remain a matter of auditor judgment.

Derivatives vary in complexity from “plain vanilla swaps” to residual tranches of asset-backed securities. Larger registrants and audit firms would likely not consider the former as risky; conceivably, for a smaller entity with access to fewer financial instrument specialists, they could be. However, even relatively simple estimates can be risky if the registrant’s accounting personnel or processes are inadequate. Riskiness is a function of the

registrant's abilities and its internal controls; auditors' assess that riskiness based on prior experience with the registrants' capabilities. One could presume every financial reporting area is a significant risk until the registrant demonstrates the ability to properly control and account for that area.

*17. Are there considerations particular to the timing and extent of these procedures (e.g., interim audit procedures), beyond the requirements of paragraphs 42–46 of Auditing Standard No. 13, that the staff should consider including in a potential new standard?*

In my experience as a quality control reviewer in the years 2004 through 2006, auditors identified more errors testing controls in accordance with AS No. 2 than they did performing substantive tests of accounts in the years prior the issuance of that standard. The staff should consider expanding AS No. 5 to require interim period testing of internal controls over certain accounts including, but not limited to, material estimates and fair value measurements. For many of these items, particularly fair value measurements, the recorded amounts fluctuate from period to period often materially. Though the total gains or losses on these items will become apparent upon their maturity, in the meantime they are subject to error and manipulation. Quarterly financial reporting is important in financial markets and is a direct function of the quality of management and the processes it establishes to generate those reports.

*18. Omitted*

*19. Should a potential new standard include specific audit procedures related to auditing disclosures of accounting estimates (e.g., disclosures on levels within the fair value hierarchy)?*

No. I do not believe that improperly classifying a financial instrument whose fair value measurement is reasonable is an error that makes the financial statements misleading or in any way unfair. However, I do believe that a material misclassification could be an indication of a significant deficiency in internal control if it is indicative of a lack of competence on the part of those employees and management who prepare and who review such disclosures.

*20. Given the existing requirements related to testing controls in Auditing Standard No. 13 (and Auditing Standard No. 5, as applicable), would specific requirements on testing internal controls over accounting estimates be useful (e.g., evaluation of design and operating effectiveness of key review controls over accounting estimates)?*

AS No. 5, AS No. 12 and AS No. 13 all speak to the need to evaluate the competency of registrant personnel and third parties who prepare estimates, supervise those who prepare them, or who exercise control over them. However, those standards do not address the qualifications of the auditor who tests the accounts or the controls over them.

The staff should consider the experience of the Board's inspection teams in their examinations of complex estimates and fair value measurements to identify both common and best practices among the firms related to training and evaluation of individual auditors. For example, while many firms have designated specialists who review complex mathematical models related to Level 3 financial instruments, those same firms might use inexperienced staff or internal auditors to perform walk-thru procedures and to test controls over the assumptions and data used in those models. The Board should consider amending AS No. 5 to require fair value measurement or similar expertise and training of those who test or document internal controls over these areas including those who perform walk-thru procedures.

Fair value estimates necessarily include unverifiable inputs as they require the registrant to consider what market participants would do – whoever they might be – and to assume an arms-length transaction with an unknown willing buyer. Clearly, more judgment and more expertise is required to audit fair value estimates of Level 3 financial instruments and more emphasis must be placed on the quality of the registrant's personnel and the quality of its internal control related to those estimates. I believe auditors should be required to audit

management's processes and controls related to more complex estimates (such as Level 3 financial instruments and goodwill) evaluate those controls, and report on them to those charged with governance.

Finally, as noted earlier, in my experience auditors detected more misstatements when they tested internal controls in accordance with AS No. 2. The staff should consider reinstating some of the requirements of that standard with respect to these complex estimates and fair value measurements. Auditors did spend more time testing controls in accordance with AS No. 2 and I believe the benefits associated with that increased time in these particular areas may outweigh the costs.

*21. Should a potential new standard include specific audit procedures that would be applicable when the auditor identifies and assesses a risk related to accounting estimates as a significant risk? If so, are there factors regarding measurement uncertainty or any other characteristics relevant to staff considerations of potential audit requirements?*

Other than tests of controls at interim periods, I do not believe the Board should specify specific audit procedures. The staff's question seeks to determine how best to audit estimates that are inherently imprecise. Despite what registrants may state about the complexity and variability of estimates, particularly Level 3 fair value estimates, users appear to act as if they expect these amounts and disclosures to be precise or "correct". These are estimates and whatever they are, they are not "correct". The staff should be careful that it is not enticed into making standards that require auditors to more precisely audit what are in reality fictional numbers. The Board should not adopt standards for estimates written as if auditors are dealing with re-computations of known numbers.

That being said, auditors must be required to test inputs to their sources. Even if auditors develop their own estimates, they eventually must use data that is specific to the registrant and therefore comes from the registrant.

*22. Are there specific factors that affect the auditor's selection of approaches related to testing accounting estimates? What considerations would be appropriate for the auditor to take into account when determining which approach (or combination of approaches) for testing accounting estimates should be selected?*

Management qualifications should dictate what auditors do. If management is not fully capable of making complex accounting estimates or fair value measurements, then the auditor must develop its own estimate and consider the need to report the existence of a material weakness. If management is highly competent, and the auditors' experience confirms that competency, the auditors should focus on tests of controls and management's supervision of those processes that generate complex estimates. In all cases, however, auditors should be required to test that data used in those estimates.

*23. Aside from testing management's process, developing an independent estimate, or reviewing subsequent events and transactions as further discussed, should a potential new standard allow for or require other approaches to testing accounting estimates? If so, what other approaches would be appropriate?*

The Board should require that auditors test controls and processes for performing fair value measurements and making complex estimates, including tax and litigation estimates. Furthermore, the Board should require such control testing of new fair value measurements or complex estimates, including new litigation or new uncertain tax positions, as of the first quarter-end in which the situation arises.

*24. Omitted*

*25. Are there enhancements to the existing requirements for testing data used by management to develop the accounting estimate the staff should consider?*

As I have stated on other occasions, I believe the Board's greatest impact on the profession is achievable through the inspection process, not through the writing of lengthy auditing standards. In response to this question, I would ask "What are the best practices the Board's inspection teams have observed in the past several years?" Through



a simple process of education and dissemination of information through Staff Alerts, the Board could have more immediate impact on audit quality each year than it can have through a multi-year process of writing, editing and adopting basic auditing standards.

*26. Are the potential requirements described above for evaluating whether the company's method used to develop accounting estimates appropriate for both accounting estimates and fair value measurements?*

The requirements listed are consistent with those outlined in AU-C 540.A72 to .A74, though not as comprehensive.

*27. In circumstances where the financial reporting framework does not specify the use of a particular valuation method, is the consideration of methods accepted by the company's industry relevant? Are there other criteria that auditors could use to evaluate the appropriateness of the company's method used to develop accounting estimates?*

If the FASB's or IASB's financial reporting framework does not specify a method, and does not specify that a reporting entity use a method that is considered the "best practice" in its industry, it is difficult for the Board or the auditors to specify that the reporting entity use a particular method. Auditing standards currently require that when management has alternatives, the auditor must report to the Audit Committee the existence of those alternatives; how the entity's reports compare to other, similar entities; and the implications of the entity's choices for financial reporting. As I have said elsewhere, improving the quality of information provided to users must start with management and it is the Audit Committee's responsibility to push management to improve quality in areas such as this.

*28. Would a requirement for the auditor to determine which assumptions used by management are significant assumptions present difficulties in practice? Should the staff consider a requirement for the auditor to identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate?*

I believe if an auditor is evaluating management's estimate, the auditor will have some basis on which to decide whether it believes management's assumptions and its model are reasonable. If an auditor has the expertise to make that assessment, the auditor must believe that there is a reasonable means of developing the model and the assumptions. To the extent management did not identify or use appropriate assumptions or modeling techniques consistent with the auditor's expectation, the auditor must identify that management's model and/or assumptions are deficient. Accordingly, I do not understand how an auditor could identify assumptions that should have been but were not used by management if management's model is reasonable. This requirement has the potential to develop into a requirement that the auditor identify and document all possible assumptions that could have been used in the model and were appropriately not used in the model. It could also lead to the requirement that auditors perform alternative calculations or develop alternative models in situations where management has flexibility under GAAP to choose its model. If management has the flexibility to choose among alternatives, what purpose does the auditor's documentation of alternative assumptions serve? How does this add to audit quality – other than adding more documentation?

*29. Omitted*

*30. Are the suggested factors described above appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluating the reasonableness of significant assumptions relevant to accounting estimates?*

In the body of the Staff Consultation Paper, the staff has not made reference to AU-C 620, *Using the Work of an Auditor's Specialist*. Matters being considered by the staff in this paper have been addressed in that standard. Again, the Board could save considerable time, energy and resources if it adopted that standard and issued any additional guidance it believed necessary for the audits of registrants.

*31. Is the potential requirement described above appropriate for all types of accounting estimates? Are there other considerations that should be taken into account in applying this requirement to accounting estimates?*

One estimate that the profession and the Board have yet to tackle is the estimated liability for a lawsuit or similar potential claim. Both registrants and auditors rely on the letters from outside counsel that either state that counsel is unable to estimate an exposure or range of loss for a matter, or that the registrant's exposure to liability will not exceed some amount. Those opinions provided by outside attorneys ultimately drive material estimates for all registrants at some point in time. Neither auditors nor management has any ability or knowledge on which to base a challenge of those legal opinions. If the registrant were developing an estimate related to litigation exposure, the Board would expect the auditor to obtain and test the information used by management to develop its estimate including its past experience with these or similar claims. There are no such expectations with respect to tests of the processes used by outside counsel to develop its estimate or express its opinion. The Board should consider whether it expects auditors to challenge and attempt to test information underlying opinions from outside counsel and if not, whether there are other professions (e.g., the medical profession) whose reports and conclusions auditors could accept without challenge.

*32. Are the potential requirements described above for developing an independent estimate, including the potential requirements regarding testing data and assumptions, clear and appropriate for both accounting estimates and fair value measurements? Would these requirements present challenges for certain types of accounting estimates and fair value measurements?*

I expect that when an auditor tests management's estimate and notes assumptions that are outside the bounds of reasonableness, the auditor either performs its own calculation to ascertain the extent of potential error in the estimate, or requires management to re-perform its calculations using assumptions that are more reasonable. Accordingly, whether the auditor develops its own estimates or tests management's model, it must perform the same tests. That is, the auditor must test the data underlying the estimate and test the reasonableness of all variables and assumptions that enter into the development of the estimate.

In the discussion, the staff gives the example of an auditor obtaining mortality rates from a third party. In my experience, registrants use third party actuaries to develop their pension obligations. Auditors also use actuaries, either their own professionals or a third party actuarial firm, and those professionals challenge the inputs used by the registrant's actuary, including the various standardized mortality tables. Also in my experience, the most common sources of error are either inappropriate management assumptions (such as rates of compensation increase or discount rates) or erroneous payroll and retiree data provided to the registrant's actuary by the registrant. The key requirement must be the audit of the data underlying any estimate and ultimately all such data has its source in the registrant's systems and records.

*33. Are there additional considerations that should be addressed with respect to information obtained by the auditor from a third-party source?*

Again, the staff should consider the requirements of AU-C 620, *Using the Work of an Auditor's Specialist*. The AICPA and IAASB have addressed matters the staff is considering in this section of the paper. The guidance in this standard is applicable to use of information developed by third party specialists.

*34. Are there factors that the staff should consider when developing potential audit requirements for testing the reliability and relevance of data independently derived by the auditor or obtained from other sources?*

Ultimately, even if auditors develop their own estimates, the data they use has to come from the registrant. Information on a registrant's projected cash flows, which will form the basis for many estimates, cannot come from any source other than the registrant. Accordingly, the auditor must ultimately identify and test that data. Variables used by the auditor in developing its own estimates (discount rates, growth rates, prepayment speeds and so on) must come from independent sources and those sources have to be evaluated. The auditor must even

challenge data developed independently from sources outside the audit firm; one need only recall the recent manipulation of a purportedly reliable benchmark such as LIBOR.

*35. Are there other matters relevant to developing a range that a potential new standard could address (e.g., requiring a sensitivity analysis)?*

First, auditors should perform both a sensitivity analysis and a retrospective analysis of registrants' estimates. The former will heighten the auditors' sensitivity to the risks inherent in management's estimates; the latter will highlight any changes in management's inherent biases or in its methodologies for generating estimates.

Second, the Board should comment on Financial Accounting Standards Board proposed accounting updates whenever it has the opportunity. I continue to believe that improving the quality of financial information must start with improving registrants' financial reporting processes. I believe that many investors take estimates at face value and ascribe a level of reliability to them that is not commensurate with the underlying uncertainty. Requiring management to develop and disclose reasonable ranges for these complex estimates would begin to raise the level of awareness of users of financial statements and help them to understand that what they see in financial statements is not a "true and correct" picture of a registrant's financial position or the results of its operations. Citigroup's 2013 annual report disclosed that it had net income of nearly \$14 billion. It also has nearly \$1 trillion of Level 2 & 3 assets and nearly \$1 trillion of Level 2 & 3 liabilities. Management and the auditors could be 99% correct on both sides of the balance sheet and the items that are missed could wipe out all that entity's income for the year.

*36. Are the potential requirements described above for evaluating audit evidence from events or transactions that occur subsequent to the measurement date through the date of the auditor's report, appropriate for both accounting estimates and fair value measurements?*

The Board should require that auditors perform a retrospective review of management's estimates. That requirement is set forth by the AICPA in AU-C 540 paragraphs .09 and .A41 and the Board should expect that auditors are already performing that procedure in audits of registrants.

*37. Are there additional factors that should be taken into consideration when evaluating the relevance of the audit evidence obtained from events or transactions that occur subsequent to the measurement date through the date of the auditor's report?*

The Board should require that auditors test registrants' controls related to financial reporting around subsequent events. At the time the Board issued AS No. 5, consideration of subsequent events was primarily an auditor's responsibility. That responsibility has since been shifted to management through the issuance of Statement of Financial Accounting Standards No. 165 (ASC 855). The Board's standard for audits of internal control focuses on testing subsequent changes to controls; AS No. 5 should be updated to require that auditors test management's controls over the identification and reporting of subsequent events.

*38. Would the potential requirements described above address procedures performed by audit firms that use a centralized testing approach? Would these requirements create issues in practice for smaller firms?*

The staff should consider recommending that the Board adopt AU-C 500 "Audit Evidence". Paragraphs A35 and following of that standard set forth appropriate requirements for evaluating management's specialist. Smaller firms would be required to comply with those audit standards whether they served a registrant or a private company. The staff would then need to consider the need to augment that standard with any specific requirements applicable to audits of registrants, including requirements related to controls and audits of controls.

*39. Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?*

Yes, I believe this could be an independence issue. If the auditor uses the same third party as its audit client, the auditor is auditing its own work. This is no different from the situation where an auditor has its own in-house valuation experts who, as part of the firm's "advisory practice", provide valuation services to the firm's audit clients.

*40 through 43. Omitted*

*44. What are the likely economic impacts, including benefits and costs, of the potential alternatives discussed in this consultation paper? Are there any unintended consequences that might result from the alternatives?*

As I commented earlier, I believe there is a cost to the Board in terms not only in the effort required to set standards but also the timing of that process. I firmly believe the Board would be a more effective regulator if it relied on the AICPA to set the basic level of standards, as it must do for private enterprises, adopted those standards as published, and then spent its time and effort enhancing those standards with additional requirements applicable to audits of registrants.

*45. Omitted*

**FROM:** Dr. Steven Glover (Professor at Brigham Young University)  
 Dr. Mark Taylor (Professor at Case Western Reserve University)  
 Dr. Yi-Jing Wu (Associate Professor at Case Western Reserve University)  
 Brant Christensen (Doctoral candidate at Texas A&M University)

**TO:** Office of the Secretary, PCAOB

**DATE:** October 29, 2014

**SUBJECT:** Comments on Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*

---

We appreciate the opportunity to submit our comments with respect to the Board's Staff Consultation Paper on Auditing Accounting Estimates and Fair Value Measurements (hereafter referred to as the Consultation Paper). We are delighted that the Board will consider steps that may clarify expectations and auditing standards' requirements in these areas. Our comments below are in response to questions outlined in the Consultation Paper and are based on some of our recent research.<sup>1</sup>

### **Overview of the Approach Being Considered by the Staff**

*Question 6. Are there other considerations relating to the alternatives explored, including other alternatives not discussed in this paper, that the staff should consider in connection with this project?*

Currently, audit firms use quantitative materiality benchmarks in evaluating whether the financial statements as a whole are fairly stated in all material respects. However, in a recent study, audit managers and senior managers with expertise in auditing fair values report that over 70 percent of complex fair value measurements contain measurement uncertainty with a reasonable range of possible reported values (i.e., outcomes considered reasonably likely by experts) that *exceeds* quantitative audit materiality (hereafter referred to as "significant measurement uncertainty").<sup>2</sup> In another study, 75 percent of audit partners and 80 percent of experienced investors indicate that measurement uncertainty significantly impacts the extent to which auditors are able to provide the

---

<sup>1</sup> For additional information, see:

-Christensen, B. E., Glover, S. M., & Wood, D. A. (2012). Extreme estimation uncertainty in fair value estimates: Implications for audit assurance. *Auditing: A Journal of Practice & Theory*, 31(1), 127-146.

-Christensen, B. E., Glover, S. M., & Wolfe, C. J. (2014). Do Critical Audit Matter Paragraphs in the Audit Report Change Nonprofessional Investors' Decision to Invest? *Auditing: A Journal of Practice and Theory*, forthcoming.

-Glover, S. M., Taylor, M., & Wu, Y. (2014a). The Gap between Auditing Experts' Performance and Regulatory Expectations when Auditing Complex Estimates and Fair Value Measurements: Causes and Potential Solutions Working Paper, Brigham Young University and Case Western Reserve University. Available at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2504521](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2504521)

- Glover, S. M., Taylor, M., & Wu, Y. (2014b). Challenges in Auditing Fair Value Measurements and Other Complex Estimates: Insights from Audit Partners. Working Paper, Brigham Young University and Case Western Reserve University. Available at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2515807](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2515807)

- Christensen, B. E., Glover, S. M., Omer, T. C., & Shelley, M. K. (2014). Understanding audit quality: Insights from audit professionals and investors. Working paper, Texas A&M University, Brigham Young University, and University of Nebraska-Lincoln. Available at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2358163](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2358163)

<sup>2</sup> Auditing Challenging Fair Value Measurements: Evidence from the Field. Cannon, N. H. and J. C. Bedard. Working paper, Texas State University and Bentley University. Available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2220445](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2220445)

requisite level of audit assurance. Further, 60 percent of audit partners with expertise auditing fair value measurements indicate that the requisite level of audit assurance for a point estimate with significant measurement uncertainty requires reconsideration in the auditing standards since providing high assurance that such estimates are fairly stated in all material respects may be misleading given the significant level of subjectivity, complexity, and uncertainty. Current financial reporting standards require these volatile items to be reported as single point estimates; further, the uncertainty underpinning these items can flow to reported profit, net income, and EPS values. Recent research indicates that auditors, and perhaps PCAOB inspectors, struggle with the auditing and reporting on values containing significant measurement uncertainty.

We strongly encourage the Board to consider how auditors should reconcile the significant measurement uncertainty inherent in many estimates (and thus, also in reported profits, net income, and EPS) with the mandate to provide an audit opinion that all reported values are fairly stated within quantitative materiality thresholds. Further, our research surveying audit partners shows that more than 90 percent support revisions to existing auditing standards to provide additional guidance and clarification regarding auditing estimates with significant measurement uncertainty. Specifically, the most frequently mentioned areas for which audit partners desire additional guidance include: (1) clarification regarding what constitutes an acceptable range of estimation uncertainty and (2) clarification regarding how the auditors are to address and disclose such uncertainty. Although the Consultation Paper acknowledges that such measurement uncertainty exists, existing standards provide little guidance on how auditors are to respond in such situations, which research suggests are increasing in frequency.

### **Alignment with the Risk Assessment Standards**

*Question 11. Are there additions or revisions to the existing requirements in PCAOB standards for identifying and assessing risks of material misstatement regarding accounting estimates that should be considered?*

The Consultation Paper mentions measurement uncertainty as an area of risk, but very little guidance is given to auditors regarding how they should appropriately respond, particularly in instances of significant measurement uncertainty that impacts reported estimates and company profitability. Our research indicates that audit partners frequently report that the high degree of subjectivity involved with such estimates is particularly challenging to audit. Related to this issue, one partner notes:

[The] biggest challenge is that inputs within a reasonable range could result in indicated values that differ greater than materiality. This precludes the ability to “stress-test” management’s analysis. Thus, supporting one number for an input over another is a matter of significant judgment.

Therefore, auditors, PCAOB inspectors, and users of auditor’s reports would benefit if the revised standards were to treat more explicitly this notion of significant measurement uncertainty including 1) how auditors are to obtain sufficient appropriate evidence to support estimates with such uncertainty and 2) how to message the uncertainty and related assurance to users in the auditor’s report.

Additionally, Page 20 of the Consultation Paper suggests that requirements for the auditor's testing of the company's process include "factors that the auditor evaluates in determining the reasonableness of significant assumptions..." In situations in which significant measurement uncertainty exists, determining the reasonableness of the assumptions should also include an evaluation and some form of disclosure in the auditor's report of the reasonable range around management's significant assumptions, as well as the impact of that range of inputs on final EPS and net income point estimates included in the financial statements.

*Question 14. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other factors that would be relevant in the auditor's evaluation of the degree of complexity of judgment in the recognition or measurement of an accounting estimate or fair value measurement (e.g., the use of a third party for the determination of a price)?*

As noted, the survey research indicates the consistent applications of audit procedures and overall audit quality would improve if the Board would define what is meant by a "wide range of measurement uncertainty," and what is to be done about such wide ranges given the SEC rules effectively only provide auditors and registrants the option of filing clean audit opinions that convey that the reported values are fairly stated in all material respects. If EPS has a "wide range of measurement uncertainty" that is multiples of auditor and user materiality, perhaps stakeholders would benefit from more clarity regarding what is meant by "fairly stated in all material respects." Our research surveying audit partners suggests that current financial statement disclosures regarding the amount of measurement uncertainty may not be sufficient and/or lack consistency among preparers. Consequently, current presentation may be misleading because financial statements users may not fully understand the reasonable range of uncertainty inherent to some estimates. Further, recent research suggests that if the auditors convey the true level of underlying uncertainty, investors are more likely to stop investing or reduce their investments in companies whose financial statements contain estimates that are characterized by significant measurement uncertainty.

A key component of the "auditor's evaluation of the degree of complexity of judgment in the recognition or measurement of an accounting estimate" would also include an evaluation of how sensitive management's point estimate is to small changes in key inputs. The revised standard would then necessarily include explicit guidance on how to interpret materiality for purposes of gathering sufficient appropriate evidence, consideration of potential audit adjustments, and how to convey the uncertainty in the audit opinion when the financial statements contain estimates and summary point estimates (e.g., EPS) that are characterized by significant measurement uncertainty that exceed auditor and user materiality thresholds.

*Question 16. Are there certain types of accounting estimates or fair value measurements that should be presumed to be significant risks?*

Yes, those estimates that are characterized by significant measurement uncertainty such that the reasonable range of outcomes includes bounds that can differ from the reported point estimate (and subsequent summary numbers such as EPS) by multiples of quantitative materiality. Further, recent research suggests that a critical audit mater

paragraph highlighting significant measurement uncertainty influences investor behavior. Therefore, we strongly suggest that the Board consider including significant measurement uncertainty as a critical audit matter to be disclosed in the modified audit report.

### **Responding to the Risks of Material Misstatement**

*Question 19. Should a potential new standard include specific audit procedures related to auditing disclosures of accounting estimates (e.g., disclosures on levels within the fair value hierarchy)?*

Yes. Although U.S. GAAP currently requires companies to only disclose *qualitative* sensitivity analyses around significant estimates, research suggests that there is insufficient consistency and transparency around such disclosures. When the uncertainty is reported in the auditor's report, or on the face of the financial statements, research suggests that users process and react to this information differently than when it is buried in pages of complex footnote disclosures. Conveying the level of measurement uncertainty and how the auditor was able to gather evidence over the fairness of the reported values is an area where auditors can provide value to users of financial statements by ensuring that management is sufficiently detailed in its disclosures about estimates, the key inputs, and the estimate's sensitivity to changes in these inputs relative to a materiality benchmark.

*Question 20. Given the existing requirements related to testing controls in Auditing Standard No. 13 (and Auditing Standard No. 5, as applicable), would specific requirements on testing internal controls over accounting estimates be useful (e.g., evaluation of design and operating effectiveness of key review controls over accounting estimates)?*

Given that the irreducible uncertainty inherent to certain estimates exceeds materiality, management or the auditor may have a very difficult challenge in determining whether a control has been designed or is operating with sufficient precision to prevent and/or detect and correct a material misstatement. Considering whether such precision is even possible in situations characterized by significant measurement uncertainty is clearly an important goal; if such precision is not possible, we believe that the Board should make clear the approach that auditors should take.

*Question 21. Should a potential new standard include specific audit procedures that would be applicable when the auditor identifies and assesses a risk related to accounting estimates as a significant risk? If so, are there factors regarding measurement uncertainty or any other characteristics relevant to staff considerations of potential audit requirements?*

Page 29 of the Consultation Paper states that the staff has considered the approach taken in ISA 540 to provide specific audit procedures around accounting estimates. Although such procedures could be *presumed* to be required under AS 13, we suggest that the revised PCAOB standard be more similar to ISA 540 in terms of specific required audit procedures.

### **Substantive Procedures for Testing Accounting Estimates**

*Question 23. Aside from testing management's process, developing an independent estimate, or reviewing subsequent events and transactions as further discussed, should a potential new*



*standard allow for or require other approaches to testing accounting estimates? If so, what other approaches would be appropriate?*

Although we do not suggest an alternative approach to the three listed above, the standards could include several required audit procedures *regardless* of which of the listed approaches auditors choose to follow. Specifically, and summarizing our responses to previous questions, auditors should be required to: 1) test the sensitivity of management’s estimates to changes in key inputs within a reasonable range of input values; 2) explicitly examine management’s disclosures around estimates to see how transparently the sensitivity to changes in key inputs is conveyed and how that sensitivity specifically relates to materiality benchmarks, 3) examine whether the impact of uncertainty on summary values such as EPS is clearly conveyed; and 4) include the level of measurement uncertainty in a critical audit matter when the range of reasonable values exceeds materiality.

*Question 29. Is the potential requirement suggested above clear and appropriate for both accounting estimates and fair value measurements? Are there other specific characteristics of significant assumptions that should be included?*

The requirement outlined on Page 35 of the Consultation Paper identifies a significant assumption as one that could “cause a significant change in the accounting estimate, based on a minor variation in the assumption.” Although that requirement helps auditors identify the most important assumptions, current standards provide little guidance on what auditors are to *do* with estimates that are derived from such volatile inputs, how they are to evaluate and report on the *reasonableness* of such estimates, and how to *reconcile* the estimates’ uncertainty with quantitative materiality thresholds.

*Question 30. Are the suggested factors described above appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluating the reasonableness of significant assumptions relevant to accounting estimates?*

As noted in our response to Question 29, assessing the reasonableness of significant assumptions should include the extent to which small changes in the input drive large swings in the final point estimate.

*Question 35. Are there other matters relevant to developing a range that a potential new standard could address (e.g., requiring a sensitivity analysis)?*

As suggested in the response above, as part of developing an independent estimate, auditors should be required to perform sensitivity analysis to understand and document the estimate’s reasonable range of measurement uncertainty.

### **Use of Third Parties**

*Question 39. Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?*

We are pleased to see the Board’s consideration of additional guidance regarding auditors’ use of valuation specialists when auditing accounting estimates and fair value measurements. Existing research suggests that audit teams frequently, if not always, involve the firm’s in-house valuation specialists when assessing the reasonableness of

significant assumptions used by third-party pricing services and outside valuation specialists to derive the estimate—regardless whether the third-party source is the same or different from one used by management. Given the involvement of the firm’s in-house specialists, the nature of the estimate, risk of misstatement, and availability and reliability of the information, the auditor may not necessarily always be required to turn to a third-party specialist that differs from one used by management. In terms of current practice, our research suggests that auditors frequently do use a different third-party pricing service from the one used by management to obtain security prices. The new standard should provide explicit guidance regarding when it is necessary for the auditor to use a third-party source that differs from the one used by management. Further, the new standard should clarify when the auditor should obtain estimates from more than one valuation specialist. Our research suggests that the frequency with which the audit team obtains estimates from more than one valuation expert differs between the use of valuation specialists and pricing services. Specifically, 45 percent of audit partners in our research report obtaining estimates from more than one pricing service while only 17 percent report obtaining multiple estimates when using valuation specialists.

*Question 42. How could a potential new standard differentiate between a third-party pricing source and a specialist?*

Existing standards do not clearly distinguish between auditors’ use of a third-party pricing service and valuation specialist. As noted above, our research suggests that auditors’ use of third-party pricing services versus valuation specialists differs; thus, the standards should differentiate between a third-party pricing source and a valuation specialist. Moreover, our research indicates that auditors’ decisions regarding whether to use a third-party pricing service versus a valuation specialist when auditing complex financial instruments are frequently driven by the following key factors: availability and reliability of pricing from the third-party pricing services, materiality and risk of misstatement, nature of the security, and the ability to understand the pricing service’s valuation methodology. The Board should consider these factors when differentiating between a third-party pricing source and a valuation specialist. Further, our findings indicate that when auditing complex financial instruments, auditors tend to try and use pricing services first before moving on to use valuation specialists. One audit partner in our survey provides more detail regarding the process:

The decision is primarily driven by our past experience in valuing similar securities/instruments. We would typically use a pricing service by default to the extent possible and then move to a valuation specialist in instances where a pricing service was unable to value the security or where we had concerns over the quality of what a pricing service could provide based on the nature of the security and our understanding the methodologies they employ.

The new standard can provide additional guidance regarding instances in which the auditor should obtain prices or estimates from valuation specialists instead of pricing services.

*Question 43. Would the potential requirement address the various methods used by third-party pricing sources for determining fair value measurements of financial instruments (e.g., use of consensus pricing and proprietary models?)*

Page 44 of the Consultation Paper notes, “pricing sources are increasingly providing products that could provide auditors with insight as to how their prices or estimates are developed.” However, existing research suggests that one of the primary challenges auditors encounter when using third-party pricing services is the reluctance of these pricing sources to share proprietary information regarding assumptions and valuation methodologies used to derive the estimate. The new standard should provide specific guidance regarding what is to be done if the pricing source will not share such proprietary information. In addition, the potential requirement is missing guidance for situations in which inconsistencies exist between valuation methodologies used by management’s third-party pricing source vs. the auditor’s pricing source.

### **Questions Related to Economic Impacts and Implications**

*Question 45. As part of considering the need for change, the staff is reviewing academic literature, including identified papers that synthesize the academic literature. Is there ongoing research or other information that the staff should consider in evaluating the economic aspects of changes in standards for auditing accounting estimates and fair value measurements?*

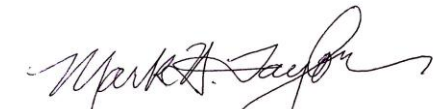
Although we were pleased to see the Board take into account the published articles listed on Page 47 of the Consultation Paper, academic research has recently generated a large number of working papers investigating the audit of estimates and fair value accounts. Because providing a comprehensive list of papers is impractical, we suggest instead that the Board review the research we have cited above as well as research by scholars including [Ann Backof](#), [Nathan Cannon](#), [Emily Griffith](#), [Jackie Hammersley](#), [Jennifer Joe](#) and others.

We appreciate the opportunity to offer our comments.

Kind regards,



Dr. Steven Glover, Brigham Young University



Dr. Mark Taylor, Case Western Reserve University



Dr. Yi-Jing Wu, Case Western Reserve University



Brant Christensen, Texas A&M University



# Grant Thornton

November 3, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803

Via Email to [comments@pcaob.org](mailto:comments@pcaob.org)

**Grant Thornton LLP**  
175 W Jackson Boulevard, 20th Floor  
Chicago, IL 60604-2687  
T 312.856.0200  
F 312.565.4719  
[www.GrantThornton.com](http://www.GrantThornton.com)

**Re: Staff Consultation Paper – Auditing Accounting Estimates and Fair Value Measurements**

Dear Board Members and Staff:

Grant Thornton LLP appreciates the opportunity to comment on the Staff of the Office of the Chief Auditor (“staff”) of the Public Company Accounting Oversight Board’s (“PCAOB” or “Board”) Staff Consultation Paper – Auditing Accounting Estimates and Fair Value Measurements (“Consultation Paper”). We agree with the staff that the area of accounting estimates and fair value measurements within financial reporting frameworks has evolved over the past decade while the corresponding auditing standards have remained relatively unchanged. We are supportive of the staff’s efforts on this topic and commend the Board for the outreach activities performed thus far.

We see clear benefits to having one standard for accounting estimates and fair value measurements as discussed in the Consultation Paper; however, we strongly caution the staff to continue to bear in mind that many types of accounting estimates, with varying degrees of complexity and general risk would be subject to such a standard. Therefore, we believe a principles-based standard that does not prescribe a large number of specific requirements will be most beneficial to auditors and audit quality. We agree with the staff’s desire to align this area with the risk assessment standards and we continue to encourage the coordination and involvement of international and other US standard-setters in order to support consistency in global practice.

Finally, we believe the issue of high measurement uncertainty, while acknowledged as an issue, is not dealt with sufficiently in the Consultation Paper. We believe that a new standard needs to better address the auditor’s responsibilities and possible responses to high measurement uncertainty. For example, we note certain standard-setters emphasize the adequacy of company disclosures under a fair presentation framework as one element of addressing high measurement uncertainty. Along those lines, the PCAOB might consider circumstances where, without management disclosing what they view as the range of uncertainty and the support for the point estimate they chose, the transparency to the user could be compromised. We urge the PCAOB to consider further study and outreach in this area. We note that a wide-ranging number of views

have been advanced in recent years, for example the research paper Bob Herz cited in the recent SAG meeting (Columbia University American Assembly Report: *The Future of the Accounting Profession*, 2003) and *Extreme Estimation Uncertainty in Fair Value Estimates: Implications for Audit Assurance* (Christensen, Glover, Wood; published February 2012). We believe the profession and PCAOB can effectively address these issues, and we believe enhancements to audit standards in this area would provide the most significant benefit to users of the financial statements.

We respectfully submit the following comments to the staff's specific topics and questions contained in the Consultation Paper.

### **Consideration of need for change and alternative approaches**

We generally agree with the staff's characterization of current audit practice and acknowledge that the profession is inconsistent with the application of the current standards to different estimates and valuations, but we are not convinced that this inconsistency is inappropriate, depending on the circumstances. However, we believe an approach that is overly prescriptive and detailed in its requirements that would be applied to auditing all accounting estimates and fair value measurements would pose difficulties and may result in an increase in costs without a corresponding increase in benefits. Accordingly, we believe further dialogue on the areas at issue would be helpful in developing a framework that provides flexibility to the auditor, with specific implementation guidance focused on the key issues identified by inspections staff and users of the financial statements. For example, the staff's questions on page 15 of the Consultation Paper seem to focus on fair value measurements and pricing sources, and while we agree that this specific area could benefit from additional audit guidance, we believe it's imperative to consider all manner of estimates and valuations when developing a potential new standard. We encourage the staff to continue to consider the root causes of its concerns and focus on how to address those specifically as opposed to requiring a prescriptive approach across all accounting estimates and fair value measurements.

### **Single standard approach**

We believe a single standard approach would provide the most benefit to the auditing industry and alleviate confusion in practice as to which auditing standard should be applied. We also believe there is sufficient commonality with respect to accounting estimates and fair value measurements relative to the process of management's selection and use of assumptions and inputs to allow for one standard.

Given the wide variety of estimates that would fall under the proposed new standard, the ability for the auditor to use his/her judgment in determining the nature and extent of procedures to be performed on each accounting estimate or fair value measurement is imperative. The breadth of applicability should preclude adoption of detailed, one-size-fits-all performance requirements. If the proposed new standard were to be prescriptive with required procedures applicable to all estimates and fair value measurements, the total work effort necessary to comply with the new proposed auditing standard will not always align with the auditor's corresponding risk assessment, thus creating inefficiencies in the audit process with little or no improvement to quality. For example, the risks of misstatement associated with a Level 3 investment are often different and require more audit attention than those identified in a typical allowance for doubtful accounts

estimate. As such, the extent of procedures performed on the Level 3 investment should be commensurate with its level of risk, as determined by the auditor, in relation to the financial statements taken as a whole.

Therefore, we believe the staff should develop key principles in the proposed new standard and minimize the amount of prescriptive requirements. We believe a principles-based standard that includes enhanced application guidance to address specific areas (such as use of specialists) could enhance audit quality. Auditor judgment in determining the risks and the extent of procedures necessary to address those risks associated with each accounting estimate and fair value measurement should be a key principle in this standard-setting process.

We believe estimates and values with very high measurement uncertainty (equal to or greater than materiality) may call for auditors to consider alternative or additional audit procedures, and we would like the PCAOB to specifically explore the need for guidance in this common circumstance. For example, management's selection of a point value within the range of reasonably possible values may bear more focus when the range is very large.

Additionally, we encourage the staff to consider the current accounting standards and SEC rules with respect to management responsibilities and disclosures. Recent SEC and FASB efforts to address disclosure "overload" are important aspects of addressing opaque or disjointed disclosures, and hopefully those efforts will begin to address those issues. In some respects, the PCAOB's outreach on the auditor's reporting model could inform this project as it relates to the transparency of the audit work around estimates and fair values, particularly those with high measurement uncertainty.

#### **Alignment with the risk assessment standards**

We support the staff's efforts to align the proposed new standard with the current risk assessment standards. Further, we believe the level of understanding obtained about the processes used to develop estimates should be scalable based on the intended testing approach. Accordingly, we believe it would be helpful to auditors and other interested parties to better understand the PCAOB's views on the connection to risk assessment. Does the staff believe auditors are assessing risks as too low or are auditors identifying the risks appropriately but the audit response is not commensurate with the assessed level of risk? We suggest additional dialogue to further clarify the staff's views and the basis for those views as the staff continue this project.

With respect to circumstances where the company uses information obtained from a third party, we encourage the staff to exercise caution in developing requirements in this area. The auditor is not auditing the third party. There may be instances where the auditor may deem it necessary to investigate further into the basis and support for third-party methods and assumptions in order to better understand the process or to validate that the data provided by management was appropriately conveyed to the third party. Likewise, circumstances may be such that extensive work on the third-party information is deemed unnecessary given the risks associated with the audit area as well as those associated with that third party. We refer the staff to the more detailed discussion of third parties included later in this letter.

We generally agree with the potential amendment to AS 12 referenced in Question 14 of the Consultation Paper but are concerned as to how the staff views this would apply to a portfolio (i.e., would each CUSIP need to be vetted individually?). We believe this may be an example of where being too prescriptive in the proposed new standard could create operational issues for auditors when applying the requirements to all accounting estimates and fair value measurements. Additionally, it may be difficult concluding that the auditor is in a better position to determine the appropriate amount for a given accounting estimate or fair value measurement than management. It would be helpful to acknowledge and consider this principle in developing a proposed standard.

With respect to Question 15 of the Consultation Paper, we believe the current guidance and requirements with regard to identifying significant risks is sufficient, and further guidance in this area would be redundant. We believe additional guidance would be better served in the area of measurement uncertainty and how that impacts the auditor's risk assessment and related response, particularly for those estimates where the potential acceptable range is greater than materiality. In some circumstances, no amount of audit procedures can reduce the measurement uncertainty inherent within some accounting estimates and fair value measurements. However, the auditor is required to assess whether management's recorded value and related disclosures achieve the goals of a fair presentation (under US GAAP) of that estimate or measurement.

Further, we are concerned with the potential amendment to AS 13 discussed in Question 18 of the Consultation Paper. We believe it may have the unintended consequence of driving the auditor to assess the minimum requirements of the applicable financial reporting framework, as opposed to focusing the auditor on management's responsibility for disclosing sufficient information so that an investor may gain a full understanding of the uncertainty of the estimate. We refer to paragraph four of AU section 411, *The Meaning of Presents Fairly in Conformity with Generally Accepted Accounting Principles* ("AU 411"), which states that "the auditor's opinion that financial statements present fairly...should be based on his/her judgment as to whether...(c) the financial statements, including the related notes, are informative of matters that may affect their use, understanding and interpretation." Paragraph three of AU 411 states that "the independent auditor's judgment concerning the "fairness"...should be applied within the framework of generally accepted accounting principles. Without that framework, the auditor would have no uniform standard for judging the presentation..." Applying the concepts within these two paragraphs has proven difficult when applied to fair value measurements with high measurement uncertainty given the perceived disconnect between what management is required to disclose and what a user would find useful within those disclosures. How then should the auditor determine fairness in presentation under the applicable financial reporting framework when that framework does not require disclosures that would truly inform a user of the financial statements such that the estimate or value can be understood, interpreted and used? Does the auditor have the responsibility to require disclosures not specifically called for by the applicable financial reporting framework when, in the auditor's judgment, they are needed by the user and required for a fair presentation? We strongly encourage the PCAOB to engage accounting standard-setters and the SEC in developing potential solutions that are aligned with the goal of increasing user transparency into estimates and fair value measurements that are subject to high measurement uncertainty.



With respect to providing specific requirements for testing internal controls over accounting estimates (Question 20 of the Consultation Paper), we believe this would only be helpful if the staff believe there are underlying issues in this area that need to be addressed through standard-setting. We believe the auditor's ability to use judgment in assessing and responding to risks associated with accounting estimates is an important principle to be preserved in this project.

Although we believe current guidance is sufficient in identifying significant risks associated with accounting estimates, we believe more specific guidance on addressing those risks would provide needed clarity to auditors. Considerations such as those included in the International Standard on Auditing 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* ("ISA 540") may be an appropriate starting point in developing further guidance for auditors in this area. As we have noted in our general comment, enhancing the standards in this area is critical to improving the auditor's response to significant risks.

### **Substantive procedures**

We encourage the staff to retain the current methods for substantively testing accounting estimates. Additional guidance could potentially be useful with regard to the selection of testing approaches, but we encourage this be provided as guidance and not prescriptive requirements. As we've noted with risk assessment, it's important that the auditor retain the ability to exercise judgment in scoping this testing as well as in developing audit procedures for testing completeness and accuracy of data used. We believe the staff should consider providing additional guidance where a combination of approaches are used in obtaining sufficient appropriate audit evidence of an accounting estimate as this situation arises fairly frequently particularly where auditor specialists are involved.

The proposed new standard could also negatively impact engagement economics particularly for medium and small firms, as it may be difficult for some firms to operationalize prescriptive requirements. We believe operational issues may be avoided or alleviated by taking a principles-based approach.

### **Testing management's process**

With respect to the continued use of paragraph 39 of AU 328, we remind the staff that this paragraph is focused on testing data produced by the company. Applying footnote 2 of AU 328 in a prescriptive manner to all data used in the development of the estimate would be highly problematic. We believe there needs to be consideration given as to the sources of data, such as whether it's generated by the company or by a third-party specialist engaged by management or by an independent third party source. This would allow the auditor to judge the relevance and reliability of that data based on factors, such as prior experience and reputation of the third party, and to design the appropriate procedures around the relative risks of completeness and accuracy of that data accordingly.

We also believe requiring the auditor to evaluate whether the company's methods are accepted within the company's industry is not workable when considering accounting estimates that currently fall under the requirements of AU 342. We believe the cost associated with executing such an evaluation on all accounting estimates would outweigh the benefit and would ultimately



not contribute to enhancing audit quality. For example, what would be the auditor's responsibility to seek out and know all methods accepted in a given industry? Also, how would this impact evolution and improvement to measurement methods? We acknowledge that industry may be relevant, and it's possible other criteria may be useful, but we don't believe the proposed new standard should prescribe evaluation of specific criteria. Rather, it should allow for the auditor to consider relevant criteria based on his/her judgment and experience. We also encourage the staff to reconsider the proposed requirements referred to in Question 26 of the Consultation Paper and evaluate whether some of these points are better positioned as management's responsibilities as opposed to the auditor's.

In regards to Questions 28 and 29, we have difficulty identifying circumstances where the auditor would identify a significant assumption that management did not, so a corresponding requirement for doing that doesn't appear operational. Rather, we recommend the staff consider a requirement to evaluate whether the data used by management is relevant to the estimate. Similarly, we are concerned that requiring the auditor to conclude on each significant assumption made by management (as suggested by the procedures referenced in Question 30 of the Consultation Paper) could result in an increase in audit procedures without a meaningful focus on the risks. For example, we note that in practice "significant" assumptions are not all equally important and they are not always entirely independent of each other, causing the auditor to evaluate the combined assumptions. Mandating conclusions on each significant assumption would be counter to the intended focus on the risk assessment standards and may result in over-auditing. While an auditor currently considers key assumptions in testing an estimate, the ultimate conclusion is on the estimate's recorded value in the context of the financial statements taken as a whole. We strongly encourage the staff to reevaluate their initial concept. The notion of evaluating the consistency of every item listed for every significant assumption is not practical and would not provide a meaningful increase in audit quality.

#### **Developing an independent estimate**

With respect to Question 35 of the Consultation Paper, there can be challenges with developing sufficiently precise independent ranges; as described in our opening comments on material measurement uncertainty, we believe further study of this area to address circumstances where the acceptance range is greater than materiality is critical in providing appropriate transparency to users of the financial statements.

#### **Evaluating subsequent events**

We believe this approach continues to be relevant and beneficial to auditors; therefore, we are supportive of retaining this option for testing. We have no significant concerns with regard to the staff's proposal in this area but continue to caution against being overly prescriptive in the proposed new standard. For example, guidance related to the level of audit evidence obtained should be commensurate with the risk of material misstatement associated with the estimate in relation to the financial statements taken as a whole.

#### **Use of third parties**

We are supportive of the staff's recognition that differences may exist between specialists and third-party pricing sources particularly in consideration of the information/evidence provided by

such sources, and we encourage the staff to acknowledge and account for this in the new proposed standard. Generally, we believe that the capacity in which services are used within the audit creates the needed distinctions between different specialists and third-party pricing sources. In considering risk assessment, the risks associated with these third parties seem to arise from a continuum of various factors, including but not limited to:

- Whether the measurement is done by an independent expert
- The nature of the relationship between the expert and the company relative to the information being provided by the expert
- The level of measurement uncertainty
- Whether measurement is performed by a qualified expert with an established track record
- Reliability of the input data

We believe the risks associated with third-party pricing sources in many circumstances are of a lesser magnitude than those typically associated with specialists engaged by management. Information provided by third-party pricing sources is for the most part generally available and not produced for the benefit of a single company whereas a specialist is typically engaged by a company to determine or assist in determining a specific estimate in that company's financial statements. Therefore, one could perceive that there is less risk in a third-party pricing source's information being materially misstated given that it is widely used by preparers and auditors. The auditor should be able to scale the rigor of audit testing over this information based on an appropriate risk assessment, which we believe may be of a lesser magnitude than audit procedures associated with information provided by management-engaged specialists that is more specific to the entity.

To explore this further, we would note that for most pricing, no company-specific information is used or relied upon by the third-party pricing source. Auditors would still be able to gain an understanding of the processes used by the third-party pricing source but testing of that process could reasonably be limited based on the lower risk. This would avoid unnecessary issues and potential scope limitations given the proprietary nature of the underlying models used by pricing sources.

We believe the auditor should be able to evaluate the information provided by any third-party specialist, including pricing sources, in the context of the subject matter and the reputation of the third party and design procedures from there as opposed to testing relevance and reliability of all third-party information or assumptions to the level which those of management are subjected to.

With regard to Questions 38 and 41 of the Consultation Paper, the potential requirements could address centralized testing procedures; the potential issue for smaller firms would be driven by perceived expectations of the Board based on other aspects of the Consultation Paper, such as testing third-party data in every circumstance or whether judgment can be applied in determining the need to test in more detail. We believe that the staff should specifically allow for centralized testing and assessment of reliability of the information provided by the third party in order to lessen the administrative burden on the third parties that could be caused by not allowing such an approach. We do not believe this approach would be detrimental to audit quality.

We very much agree that there may be circumstances when a third-party source should be treated differently, as discussed in Question 39 of the Consultation Paper; we believe the requirements and related guidance in assessing these circumstances could align directionally with the thinking around when a third party is deemed a specialist (versus, for example, a pricing source).

\*\*\*\*\*

We would be pleased to discuss our comments with you. If you have any questions, please contact Trent Gazzaway, National Managing Partner of Professional Standards, at (312) 602-8034 or [Trent.Gazzaway@us.gt.com](mailto:Trent.Gazzaway@us.gt.com).

Sincerely,

*Grant Thornton LLP*



Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803  
Via E-mail: [comments@pcaobus.org](mailto:comments@pcaobus.org)

Nov. 3, 2014

**Re: Request for Public Comment – Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements* (August 19, 2014)**

Dear Office of the Secretary:

Harvest Investments, Ltd. appreciates the opportunity to comment on the PCAOB’s Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*. As a securities’ valuation firm with more than 20 years of experience in financial reporting, we welcome the Board’s efforts to bring more clarity and accuracy to the valuation and auditing process. We applaud the efforts made by the PCAOB and many auditing professionals with regard to auditing fair value estimates. However, Harvest agrees that improvements could be made in these areas, especially in light of the vulnerabilities revealed by the recent financial crisis, which underscored the need for more accurate and independent valuation methods and processes. While we think that the Board’s concerns about third-party sources are in many respects appropriate, we caution against a view emphasizing third-party standing over the primary valuation concerns, which we believe are more fundamental. Further, we recommend that the Board provide better definitions of and be attentive to both the differences among third parties (pricing desks, central pricing sources, and specialists), and also the similarities in the way that they are used by auditors and management. Not all third parties are created equal, and the methods by which they arrive at their valuations vary considerably; consequently, the valuation information provided by each is also subject to variations in quality and independence. For these reasons, we think that it is important to hold the valuations themselves to similar standards of scrutiny, regardless of source. Third parties play an increasingly significant and important role in the valuation process, given market complexities. Therefore, it is appropriate to ensure that the quality of the information they provide is proportional to their value within the financial system as a whole.

***Observed Deficiencies in Fair Value Measurement in Particular***

In this Paper, The Board states that “deficiencies have been noted in audits performed not only under the standards of the PCAOB, but also under the standards of other standard setters around the world” (p. 3). This observation suggests systemic rather than isolated problems in arriving at



accounting estimates and fair value measurements. Harvest notes that the valuation deficiencies exposed by the financial crisis were in place for decades. Use of the least expensive sources for investment prices, paired with inexperience and misconceptions regarding investment valuations, were characteristic of several successive generations of auditors and audit clients. Harvest further notes that the tools and professional skills required to produce an acceptable level of quality in investment valuations were initially built up and designed for the high margin underwriting and trading industries. Utilizing them effectively for the financial reporting community with its much lower margins is challenging.

While Harvest's experiences indicate that many in the audit community have made great strides in fair value and financial reporting in recent years, we agree that deficiencies remain. In particular, we are concerned about the risks of a confirmatory bias, which we believe stems from the same patterns of fair value practice which led us to the financial crisis. Harvest also agrees that the best remedy is improved guidance in this area, which would increase transparency and consistency with regard to fair value by all parties engaged in the auditing process. While Harvest has contact with many auditors who are diligent about the fair value process, we see others who are either too inexperienced to navigate the challenges or remain unconvinced of a potential material risk in fair value (the nuances of which are not always correlated with the size of the audit firm). In such situations, auditors utilize an "expedient," whereby they apply an "evaluation" of management's approach rather than an independent re-valuation procedure.

Consequently, Harvest believes that the greater the awareness of all parties involved in the audit process, with respect to the methods and assumptions used in determining and challenging fair value, the better off the financial system as a whole will be. Regardless of whether a third party valuation is used or not, we support the Board's efforts to address such deficiencies and inconsistencies, and we agree that the improvement of existing standards is warranted and appropriate.

### ***Third-Party Risks and Third-Party Value***

Harvest Investments, Ltd. appreciates the Board's concern about the accelerating use of third parties for valuation purposes, and the use of centralized firm pricing desks. We also support the Paper's considerations with regard to different types of third parties. In our view, it is important that the information obtained by auditors from third party sources is understood by the auditors, and that the methods and assumptions used in price development (and the basis for their determination) are transparent. Currently, the valuation methods used by specialists are subject to a greater degree of scrutiny than those used by national pricing desks, broker-dealers, and other pricing sources. The Board asks whether its understanding of current audit practice regarding these different pricing sources is adequate (Questions 1 & 2), and whether there may be additional issues regarding the use



of third parties that should be taken into consideration in the drafting of a new standard (Question 13). Harvest notes that we see various pricing sources are all being used like Specialists, regardless of whether that source is a third party pricing service, a broker-dealer, or an internal pricing desk. For example, the information provided by “Big Box” pricing sources is often used uncritically within financial statements (by both management and auditors). Harvest notes that such sources, which were designed to meet daily pricing needs, have too many instances in which they do meet the quality standards of financial reporting, even on “easy to price” securities that are widely held in financial institutions. While we agree that different approaches may be warranted for different types of pricing information, we think that, regardless of pricing source, management and auditors should understand the individual inputs and assumptions (and the observable basis for arriving at each) that factor into the fair value measurements they receive. Harvest observes some third party pricing sources “proving the accuracy” of a value by back-filling inputs, and we note that this is not the same as providing transparency into the original process. We recommend that the valuation information used in the development of all third party prices be held to similar standards in order to minimize the risks of material misstatements and confirmatory bias. Based on our experiences, we think that all pricing sources should be vetted and treated like Specialists, because we see too many instances in which they are all being used as such by management and auditors.

As the Board notes, valuation can be a difficult matter, especially in cases of complex securities with less observable/documentable inputs. If pricing information is passed from source to source without any corresponding efforts to understand how and why that information was first developed (and by whom), the risks of material misstatement and confirmatory bias increase. To meet the requirement of independence in valuation and to avoid the costs associated with the proliferation of recurrent or faulty valuation information, a more stringent process is required. An auditor must not only collect the inputs and assumptions used in price development, but also observe and understand the source’s basis for arriving at each. In order to assess whether a valuation is independent, it is first necessary to understand how that valuation originated. This is not a matter of chickens-and-eggs, but rather a clear case of priority. Such knowledge requirements on the part of auditors are notably relevant in order to meet the Board’s requirements regarding the independence of fair value measurements in particular, and accounting estimates in general.

In response to the Board’s Question 14 concerning factors relevant to the auditor's evaluation of the degree of complexity of judgment in the recognition or measurement of an accounting estimate or fair value measurement, we recommend that the new proposed standard emphasize the importance of understanding the methodologies used to develop the complex inputs, which determine the fair value prices, regardless of third party type. In some cases, an independent analysis of the severity of each input might be warranted. Given the pressures felt by audit firms to keep costs in check and limit client conflicts over investment valuations, Harvest notes that valuations produced by the centralized pricing desks of audit firms, whose role it is to juggle the cost as well as the quality, may have more of a confirmatory bias than those provided by other sources. This is an additional reason



to treat these desks with at least the same rigor as a third party. Presuming an adequate framework for interpreting and understanding third party valuations, we think that the possible risks presented by the use of well-vetted third parties are currently fewer than those presented by the confirmatory approaches used by some audit firms.

### ***Cost and Benefit Issues***

As a third-party valuation specialist, Harvest Investments, Ltd. has considerable knowledge of the processes involved in fair-value measurement, as well as the costs. Harvest notes that there is significant economic pressure on auditors to reduce their hard dollar expenditures, soft dollar professional hours, and client relationship-damaging conflicts that relate to investment valuations. Audit firms who increase costs in this area suffer competitively as their clients adjust to the new reality. Over many career-spanning decades, both management and auditors have built a baseline consensus and tradition of fees, attitudes, and procedures. That system is heavily resistant to and skeptical of the need to build a relatively costly new infrastructure capable of producing valuations with enough integrity to protect investors and to support our financial system. Given their profit limitations, audit firms face significant resistance to spending on valuations and are tempted to resort to procedures which circumvent key components of quality due to either ignorance or pressure. Harvest also notes that audit firms have been charged with two responsibilities that can be costly. First, the audit firms must build an acceptable internal infrastructure for producing valuations of an acceptable quality, which (in theory) are passed through to their clients. Second, the audit firms must apply pressure to their clients to build a similar infrastructure of their own. Therefore, audit firms are effectively trying to add this new cost to their clients twice, creating significant pressures and temptations to use procedures and information that may not meet the required quality standards.

Harvest observes many auditors applying sampling techniques to limit expenditures. While we believe material risks can be best avoided with an audit that includes an annual re-valuation of an entire portfolio, we agree that sampling is especially useful in testing processes. Auditors can obtain a deeper understanding of the valuation process used for various types of items by “digging in” on a sample of each. Harvest notes that such a sample should include items in each major asset category and also those with higher risk. Because our historic experience has been that samples can be a poor representation of the inherent risks in a portfolio, Harvest suggests that guidance be provided in this area. Guidance could highlight specific issuer sectors and areas of risk, such as items with underlying holdings, derivative features, lower ratings, no ratings, linked returns, complex structures, callable step up notes, and other non-bullet structures. Given clear audit guidelines, we believe a sampling approach of this sort could help control costs without jeopardizing transparency in the methods used to assess the fair value of a portfolio.





Additionally, Harvest would like to register concern over the significant amount of hours being applied to the area of ASC 820 level assignments. While we appreciate the need for ASC 820 hierarchical leveling and the transparency it sheds on valuation risk, we have been experiencing as many heated discussions regarding variances in ASC 820 levels as we have regarding the values themselves. The current guidance calls for levels to be indicative of the lowest level input used in a valuation; however, our experience suggests that both management and auditors use a practical expedient to level their portfolios. It is Harvest's opinion that there is pressure to record "borderline" items at Level 2 in the ASC 820 fair value hierarchy rather than dropping them to Level 3, due to the added documentation and negative perception of Level 3 securities. Based on these experiences, Harvest believes that guidance in this area could help reduce soft dollar hours and inherent client pressures regarding leveling in today's system, while improving consistency and transparency. Absent adding a 4<sup>th</sup> ASC 820 level, which Harvest would support, guidance could either dictate characteristics inherent in the various ASC 820 levels or provide examples of security types in each level. Any such language or examples should address the security features that cause any single input in a valuation model to be difficult to document with observable market information (limited liquidity, embedded options, lack of or lower ratings, complex cash flows, lack of trading in observable comparable assets, etc.). It is our belief that guidance of this sort would lessen soft dollar hours in this area, while providing consistency in practices and transparency into valuation risk.

Given the growing complexities in the financial markets and the profoundly interconnected nature of today's financial system, Harvest supports additional guidance in the area of fair value. We believe that such guidance will aid those participating in financial reporting with more knowledge about these complexities and interconnections, improving the system as a whole.

\* \* \*

In closing, we thank the Board for the opportunity to present our views on this Staff Consultation Paper. If the Board would like to discuss any of our comments further, we are at its disposal. Please contact Susan DuRoss (312-823-7051).

Sincerely,

Harvest Investments, Ltd.





3 November 2014

PCAOB  
FAO Martin F Baumann  
Office of the Secretary  
1666 K Street, N.W.  
Washington DC 20006-2803  
USA

by email to: [comments@pcaobus.org](mailto:comments@pcaobus.org)

Institut der Wirtschaftsprüfer  
In Deutschland e.V.

Wirtschaftsprüferhaus  
Tersteegenstraße 14  
40474 Düsseldorf  
Postfach 32 05 80  
40420 Düsseldorf

TELEFONZENTRALE:  
+49 (0)211 / 45 61 - 0

FAX GESCHÄFTSLEITUNG:  
+49 (0)211 / 454 10 97

INTERNET:  
[www.idw.de](http://www.idw.de)

E-MAIL:  
[info@idw.de](mailto:info@idw.de)

BANKVERBINDUNG:  
Deutsche Bank AG Düsseldorf  
Bankleitzahl: 300 700 10  
Kontonummer: 7480 213  
IBAN: DE53 3007 0010 0748 0213 00  
BIC: DEUTDE33XXX  
USt-ID Nummer: DE 119353203

Dear Mr. Baumann,

**Re.: Staff Consultation Paper: Auditing Accounting Estimates and Fair Value Measurements – August 19, 2014**

The IDW would like to thank you for the opportunity to comment on the above mentioned Staff Consultation Paper: Auditing Accounting Estimates and Fair Value Measurements released August 19, 2014 (hereinafter collectively referred to as the "paper").

We appreciate the need to revise the PCAOB's interim standards in this area. Nevertheless, we would caution that in doing so, the PCAOB will need to be extremely sensitive to the risk of increasing public expectations concerning this particular aspect of the audit. For example, increasing the level of prescription in particular areas as discussed in the paper may inadvertently increase public perceptions that provided the entity applies the "right" process or model an acceptably reliable estimate can "more or less always" be included in the financial statements, when in fact the desired degree of precision remains unattainable in respect of certain accounting estimates. Of course to the extent that PCAOB inspections reveal insufficient levels of testing by auditors, a better clarification of requirements within a new standard could help enhance audit quality; however no new standard can compensate fully for the fact that

GESCHÄFTSFÜHRENDER VORSTAND:  
Prof. Dr. Klaus-Peter Naumann,  
WP StB, Sprecher des Vorstands;  
Dr. Klaus-Peter Feld, WP StB CPA;  
Manfred Hamann, RA



page 2/4 to the PCAOB dated 3 November 2014

accounting estimates are subjective in nature, such that hindsight may always reveal a degree of imprecision that no audit can compensate.

We have chosen not to respond in detail to individual questions, but have instead concentrated our comments on those of the specific issues raised within the broader sections of the paper for which we have a specific view.

#### The Potential Need for Standard Setting

The IDW agrees that the extant PCAOB standards dealing with accounting estimates are in need of revision, for the reasons explained in the paper.

As a long-term supporter of the International Standards on Auditing (ISAs), the IDW has consistently called for maximum possible alignment of the PCAOB's auditing standards with the ISAs. We are therefore pleased to note on page 14 of the paper that staff recognizes that many firms with international audit practices are familiar with and use ISA 540. To the extent that auditors use external expertise in auditing accounting estimates ISA 620 would also be relevant.

In our view, there are a number of specific challenges from an audit perspective that are not specifically discussed in the paper. For example, different perceptions of the relevant accounting requirements (both IFRS and US GAAP) between preparers and auditors and between jurisdictions is one such issue. Firms with international operations certainly observe that cultural influences exacerbate the inherent subjectivity in the interpretation of requirements in the accounting standards between jurisdictions, for example, concerning the question as to whether prices obtained from a pricing agency can be regarded as level 1 in the accounting hierarchy or not, given the resultant impact on disclosures required to be made within the notes to the financial statements. We understand that reporting entities also often see this issue from a reputational perspective, and would generally prefer to be seen to report level 1 rather than level 2 information where permissible. The auditor is thus faced with having to accept or reject the company's adopted treatment as being in compliance with the applicable financial reporting framework and also with the difficulties in obtaining the necessary supporting evidence, since pricing agencies often do not have an interest in making their business models transparent for competitive reasons. Consequently, we believe that the PCAOB can play an important role in sensitizing financial reporting standard setters, such as the FASB and the IASB, that financial reporting standards ought to recognize the need for



page 3/4 to the PCAOB dated 3 November 2014

preparers to obtain adequate evidence to support their estimates even when third-party pricing agencies are used.

#### Staff Consideration of Alternative Approaches

We agree that issuing staff guidance cannot be the long-term solution, and would support the issuance of a single standard mirroring ISA 540 to replace the existing PCAOB auditing standards in this area.

As the PCAOB staff is no doubt aware, the IAASB has recently undertaken a post-implementation review of its so-called clarity standards issued in 2009 in order to inform itself as to any need for revision. The IAASB's report detailing findings from the post-implementation review includes specific mention of ISA 540 on page 38. One of the goals identified in this report is: "To emphasize the importance of professional skepticism and ensure that attention is paid to indicators of possible management bias and their audit implications". This is a key aspect in the area of accounting estimates, as concerns have been expressed in some quarters that auditors do not consistently challenge management estimates to a satisfactory degree. Consequently, we were surprised to note that this was not discussed in the paper.

We do not believe that it would be appropriate to include industry specifics as requirements since the standard should be applicable to all entities that use estimates. Specific guidance using examples would be the preferred way of dealing with any industry specifics.

#### Key Aspects of a Potential New Standard and Related Potential Requirements

In our opinion the approach taken by the IAASB in ISA 540 with respect to risk identification and assessment requirements pertaining to accounting estimates is appropriate to assist auditors in obtaining sufficient appropriate evidence in relation to accounting estimates. The application and other explanatory material in ISA 540 contains valuable information, much of which would add helpful clarification if included – as guidance – in the PCAOB's standard(s). In this context, we note that the PCAOB staff pose a number of questions as to the desirability of further clarification, such as is discussed on page 30 et seq. We generally support such clarification in the ISAs and their potential application within a principles-based suite of standards, but do not believe it is appropriate for the PCAOB to go further in requiring the auditor perform additional procedures as put forward in the paper; procedures that are based on guidance



page 4/4 to the PCAOB dated 3 November 2014

as opposed to requirements within the ISAs. Such a level of prescription may be appropriate in relation to particular significant risks, but be excessive in some other circumstances and, in our view, is generally best dealt with as clarification about how the auditor may fulfil the overarching requirement. Additional requirements should either be conditional requirements or be restricted to those risks that the auditor had determined are significant risks, as appropriate.

On balance and given the sensitivity of accounting estimates from an audit quality perspective, dealing clearly with all aspects of accounting estimates in the audit in a single standard can be helpful, although this might also be achieved with appropriate cross-referencing within the suite of PCAOB standards. This equally applies to other areas such as recourse to external experts, evaluation of audit evidence and presentation within the financial statements. In view of the comments we have made above concerning divergent interpretation of the requirements of accounting standards in the area of fair values, we agree that it may be useful to include a specific material on note disclosures concerning levels within the fair value hierarchy to draw attention to this issue.

If you have any further questions about our comments, we would be pleased to discuss our comments with you.

Yours truly,

Klaus-Peter Feld  
Executive Director

Gillian Waldbauer  
Technical Manager, International Affairs



February 25, 2015

Mr. Martin F. Baumann, Chief Auditor  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, DC 20006-2803

Re: Staff Consultation Paper – *Auditing Accounting Estimates and Fair Value Measurements*

Dear Mr. Baumann:

The Financial Reporting Committee (FRC) of the Institute of Management Accountants (IMA) is writing to share its views on the Public Company Accounting Oversight Board's (PCAOB or Board) Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements* (Consultation Paper).

The IMA is a global association representing more than 70,000 accountants and finance team professionals. Our members work inside organizations of various sizes, industries and types, including manufacturing and services, public and private enterprises, not-for-profit organizations, academic institutions, government entities and multinational corporations. The FRC is the financial reporting technical committee of the IMA. The committee includes preparers of financial statements for some of the largest companies in the world, representatives from the world's largest accounting firms, valuation experts, accounting consultants, academics and analysts. The FRC reviews and responds to research studies, statements, pronouncements, pending legislation, proposals and other documents issued by domestic and international agencies and organizations. Additional information on the FRC can be found at [www.imanet.org](http://www.imanet.org) in the Advocacy Activity section under the About IMA tab.

While we support the PCAOB's efforts to provide more guidance to auditors to assist them in auditing accounting estimates and fair value measurements, we are concerned that the Board is considering making changes that will require the auditor to perform more procedures, creating an impression of increased quality, but that will not significantly increase the quality of the amounts reported in financial statements due to the inherently subjective nature of many estimates and fair value measurements. We note that the PCAOB staff, based on its research and outreach, was not led to a conclusion that the common approaches for testing accounting estimates and fair value measurements in the existing standards required replacement. Accordingly, we question the need for a new approach that would lead to wholesale changes to auditing estimates and fair value measurements. While the Consultation Paper indicates that the potential need for improvements in auditing standards relating to auditing estimates and fair value measurements is illustrated by audit deficiencies noted by the PCAOB and other audit regulators, it is not clear to us whether those deficiencies are the result of inadequate guidance in the standards or due to poor execution of the existing standards by audit engagement teams. Before the Board decides to modify or replace existing standards, we believe that the PCAOB needs to conclude that audit deficiencies were the direct result of inadequate guidance in those standards.

Accounting estimates and fair value measurements are the responsibility of management pursuant to Generally Accepted Accounting Principles (GAAP) as mandated by the Financial Accounting Standards Board. Management, the Disclosure Committee and the Audit Committee of a public company take seriously their responsibility to review the determination of estimates and fair values. Further, when significant, those matters are prominently disclosed, both in the financial statement footnotes and in Management's Discussion and Analysis. Many of these estimates and fair value measurements are extremely judgmental and based on



assumptions about matters that may not be resolved in some cases until many years into the future. For example, companies may use complex models to estimate the fair value of financial instruments in Level 3 of the fair value hierarchy. Developing the inputs to those models may require the company to exercise significant judgment. As contemplated by the accounting standards, there could be reasonable alternative inputs that could result in significantly different fair value measurements for such financial instruments. Similarly, the measurement of asset retirement obligations for nuclear power plants requires a considerable amount of judgment, particularly where the retirement is not expected to happen for 30 or 40 years.

A company is required to do its best under GAAP to record accounting information where estimates of the future are inherent in the process. AU342, *Auditing Accounting Estimates*, requires an auditor to “obtain sufficient appropriate evidential matter to provide reasonable assurance that (a) all accounting estimates that could be material to the financial statements have been developed, (b) those accounting estimates are reasonable in the circumstances, and (c) the accounting estimates are presented in conformity with applicable accounting principles and are properly disclosed.” AU328, *Auditing Fair Value Measurements and Disclosures*, requires an auditor to “obtain sufficient appropriate evidential matter to provide reasonable assurance that fair value measurements and disclosures are in conformity with GAAP.” Both standards provide certain items the auditor should consider in obtaining “sufficient evidential matter” regarding estimates and fair value measurements. We believe that the principles-based approach in the existing standards is clear and are concerned the Board will simply mandate specific substantive procedures that may not be necessary or appropriate in all circumstances but, because of concerns that an audit will be found to be deficient, will be performed anyway. Further, if the Board develops specific procedures to address certain estimates or fair value measurements, it is likely that those procedures will quickly become outdated as the types of transactions in which companies engage evolve. We believe that approach would not be an improvement.

Based on the extensive list of questions in the Consultation Paper, we are concerned that this project, if added to the Board’s standard-setting agenda, may lead to a new standard that calls for significantly greater work by auditors that goes beyond what is truly needed to attest that management’s judgments in developing estimates and fair value measurements are appropriate. Because of the subjectivity associated with many estimates and fair value measurements, requiring the auditor to perform additional procedures will not necessarily result in a better estimate or fair value measurement. We have the following specific comments and questions on the Consultation Paper.

1. We do not believe the Board should change existing Generally Accepted Auditing Standards (GAAS) as it relates to management’s use of specialists. The approach discussed in the Consultation Paper (pages 37 and 38) would, if adopted by the Board, require the auditor to test information provided by a specialist retained by management as if it had been provided by the company. If an auditor were required to, for example, recompute the projected benefit obligation for a pension or post-employment benefit plan provided by an actuary retained by the company, it would increase compliance costs. It is highly unlikely the actuary would agree to provide the auditor with access to its proprietary models, which would require the auditor to recompute the estimate. It is also likely that the auditor (who may have access to models within the firm that can be used to recompute the projected benefit obligation or may be required to retain a third party actuary) will identify differences between the original measurement and the recomputation, which if significant will require further investigation simply because the estimates and models are subjective and could produce a wide range of results, not because the inputs or methodologies used by the actuary were unreasonable. We believe that the exercise will increase compliance costs, but will not significantly enhance the value of the information reported in the financial statements; both valuation models may result in reasonable estimates of





the item being measured. We do not see incremental value in having an auditor test the models used by an actuary to estimate the projected benefit obligation of a pension or post-employment benefit plan. We believe the approach in AU Section 336 has served users, auditors and preparers well over the years and see no compelling reason to change that guidance.

2. On page 35 of the Consultation Paper, the staff provides a list of assumptions that could be included in a new standard to help the auditor determine whether the significant assumptions have been identified. If the Board believes it is appropriate to provide a list of assumptions, we believe only the first assumption should be included. Unless a change in an input could have a significant effect on the measurement of the estimate, it is not, by definition, a significant assumption. We would be concerned that an auditor could be required to spend a significant amount of time getting comfortable with an input that is based on unobservable data when changes in that input would not significantly change the measurement of the asset or liability.
3. The Consultation Paper discusses (on page 32) a potential requirement that the auditor evaluate whether a company's methods are accepted within the company's industry, even when GAAP permits judgment in selecting the method for determining an accounting estimate. We believe the focus should be on whether a method is appropriate given a company's particular facts and circumstances. Only if the auditor concludes the selected method is not appropriate should additional procedures be performed to address the risks arising from the selected method. We believe requiring the auditor to evaluate whether a company's methods are accepted within the company's industry places the auditor in an untenable position if information about the method applied by other companies is not readily available and the auditor does not audit a majority of the companies within the industry. Further, we believe a requirement that the auditor assess the methods used, particularly valuation models, could result in a migration to methods and models that are easier for the auditor to assess, but may not be as appropriate for the particular facts and circumstances as a method (or model) that is newly-developed but not widely used within the industry.

We believe existing GAAS provides an appropriate framework for auditors to test management's approach and are not aware of any significant issues with that framework when it is applied appropriately. Any significant expansion of the auditing guidance in this area is unlikely to increase the accuracy of the amounts recorded in financial statements. Most companies desire relatively rigorous auditing to ensure that their processes for recording significant estimates and fair value measurements are appropriate and the judgments they have employed are reasonable. Adding procedures that increase the amount of work the auditor is required to perform but that do not enhance the usefulness of the financial statements (i.e., through increased accuracy of estimates and fair value measurements) fails the cost-benefit test.

We appreciate the Board's consideration of these comments. We are available to discuss our comments at your convenience.

Sincerely,

Nancy J. Schroeder, CPA  
Chair, Financial Reporting Committee  
Institute of Management Accountants  
[nancy@beaconfinancialconsulting.com](mailto:nancy@beaconfinancialconsulting.com)

November 3, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington DC 20006-2803

Re: Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*

To the Staff of the Office of the Chief Auditor:

Interactive Data appreciates the opportunity to comment on Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*, published August 19, 2014 by the staff of the PCAOB's Office of the Chief Auditor.

Interactive Data provides independent evaluations to both auditors and end clients as an input in their valuation process for assets and liabilities required to be measured at fair value. We believe our extensive experience as a third party evaluations provider serving more than 5,000 global organizations can give rise to useful insights concerning the practices and processes that result in high quality evaluations. We believe that this experience closely aligns us with the auditing objective of assessing the reasonableness of valuations in financial statements. Because Interactive Data is not an accounting firm or auditor, we are not well positioned to comment in depth on specific accounting standards or frameworks.

We have focused our comments on the questions regarding "Use of Third Parties", appearing on pages 43 through 46 of the Staff Consultation Paper.

In summary, Interactive Data believes that:

- Auditors should not be automatically required to use a different third-party pricing source than company management used to develop fair value estimates. Rather, we believe that comparing estimated values with observable market data, where available - trades, dealer quotes, and other relevant observable information, including comparables - is the most effective and objective approach for testing the reasonableness of fair value estimates.
- It is appropriate for the PCAOB to require that auditors consider the experience and expertise of the third party pricing source relative to the type of asset or liability being valued, as well as the methods used by the third party in the specific circumstances, including whether the methodology conforms to applicable financial reporting frameworks. We also agree with the staff's proposal for evaluating the relevance of the





evidence obtained from the third party pricing source, which is consistent with the principles set forth in ASC Topic 820.

- Beyond the factors listed in the Consultation Paper, we suggest that additional factors may assist auditors in determining reliability and relevance of third-party evidence, such as:
  - The number and experience of evaluators at the third party pricing source.
  - The extent of documented controls applied by the third party in its evaluation process.
  - The third party's procedures for, and historical results from, responses to security-level challenges to their evaluated prices.
  - The use of a rules-based, risk-driven sampling approach by auditors for validating a company's fair value estimates.
- A new or amended standard should reinforce existing practice in which specialists are retained to value specific assets or liabilities on a unique or custom basis for their client, while third-party pricing services sell valuations and related data to the public on a uniform basis for each instrument they evaluate.
- A new standard should induce auditors to take account of differences in valuation approach employed by third-party pricing sources. In particular, we believe consensus pricing (i.e., mechanically averaging or otherwise aggregating prices obtained from a survey of dealers or other market participants) has been demonstrated to be vulnerable to inaccuracies, or even manipulation, especially when non-executable quotes are included in the survey.

### Background on Interactive Data

An independent source of evaluated prices, Interactive Data Pricing and Reference Data LLC ("Interactive Data") is a Registered Investment Adviser with the SEC under the Investment Advisers Act of 1940 and has been in the evaluations business for more than 40 years. The company provides global security evaluations designed to support financial institutions' and investment funds' pricing activities, research, and portfolio management. We offer evaluations for approximately 2.7 million fixed income securities (including security-based swaps and loan products), as well as our Fair Value Information Services for international equities, options and futures, and valuations for complex structured products and OTC derivatives.

In recent years, we have invested considerable resources to expand our coverage and provide our clients with greater insight and transparency into the inputs used to derive our evaluated prices, as well as help automate and streamline key valuation processes. Interactive Data Pricing and Reference Data has built a strong presence within the U.S. mutual fund marketplace and



currently counts 50 of the top 50 U.S. mutual fund companies as customers as well as 16 of the top 16 custodian banks, 48 of the 50 largest U.S. banks and 33 of the top 50 hedge funds.

Interactive Data maintains active collaboration with auditors and the asset management industry through Working Groups we have organized to discuss valuation and price validation matters. Members of our staff also have participated on the Pricing Sources Task Force within PCAOB's Standing Advisory Group.

### Use of Multiple Pricing Sources

On page 44, the staff expresses concern that instances where the auditor and the company use the same third-party pricing source may raise questions about whether the auditor could arrive at an independent estimate. To address such situations, the staff asks in Question 39: "Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?"

We believe that the most effective approach, where possible, is to compare estimated values with observable market data: trades, dealer quotes, and other relevant observable information including comparables. We do not believe that requiring the auditor to use a different pricing source than management used would automatically contribute to improved relevance or reliability of accounting estimates. As the SEC stated in its recent Valuation Guidance, "pricing services employ a wide variety of pricing methodologies in arriving at the evaluated prices they provide, and the quality of those prices may vary widely."<sup>1</sup> Information from another third-party pricing vendor is additive to the assessment process only if the second vendor's process or input data are equivalent to or better than the first. Otherwise, the additional data may either mask a problem with the estimate or incorrectly identify securities that require further review. Instead, we recommend that a new standard require auditors to use market information where available (including indirect market observations) to test management's fair value estimates, including those sourced from third parties.

A requirement that auditors obtain prices from a different third party source could, we believe, have the unintended consequence of leading the industry to believe that reasonableness of fair value estimates can be assessed simply by comparing prices from different third-party vendors. The vendor-comparison approach to price validation – along with the kindred median-among-vendors approach to fair value estimation – became established during a period when information about fixed-income market activity and pricing vendors' assumptions and inputs was less readily available. Today, such information is increasingly available to companies and auditors. Public sources of transaction data include FINRA TRACE<sup>®</sup> for U.S. corporate bonds,

---

<sup>1</sup> SEC Release No. 33-9616, "Money Market Fund Reform; Amendments to Form PF" (July 23, 2014).  
<http://www.sec.gov/rules/final/2014/33-9616.pdf>



EMMA<sup>TM</sup> for U.S. municipal bonds, and FINRA Securitized Products Dissemination Service<sup>SM</sup> (SPDS<sup>SM</sup>) for U.S. agency pass-through mortgage-backed securities. For U.S. structured bonds, FINRA-Interactive Data Structured Products Aggregate Reports display aggregated daily trading and average price by category.

The staff correctly observes that pricing sources are increasingly providing products that could provide auditors with insight as to how prices or estimates are developed. Of the large investments in technology that Interactive Data has made over the past four years, a significant portion has gone toward creating new platforms that enable our evaluations staff, our clients and their auditors to more easily view our evaluated prices alongside relevant market data such as trades and dealer quotes for the security in question or similar securities, and to conduct periodic testing of fair value estimates for fixed-income securities grouped in portfolios. A forthcoming enhancement will categorize and count inputs by type, producing scores to assist clients with both quality assessment and the classification of individual security holdings within the Topic 820 fair value hierarchy and related disclosures.

#### Reliability and Relevance of Third-Party Information

On pages 45-46, the Staff Paper sets out potential requirements for evaluating evidence from third-party pricing sources. Under the staff's proposed approach, the auditor would first gauge reliability - taking into account the third party's "experience, expertise (and) methods used" in the specific context - and then evaluate the relevance of the third-party information.

Interactive Data agrees with both the thrust of the Staff Paper section headed, "Evaluating Audit Evidence from Third-Party Sources," and with the suggested wording of a new standard presented on pages 45-46 that would address this topic. We believe it is appropriate for the PCAOB to require that auditors consider both the experience and the expertise of the third party relative to the type of asset or liability being valued, as well as the methods used by the third party in the specific circumstances, including whether the methodology conforms with applicable financial reporting frameworks. We also agree with the staff's proposal for evaluating the relevance of the evidence obtained from the third party pricing source, which is consistent with the principles set forth in ASC Topic 820.

**Question 40. Would the factors noted above help the auditor in evaluating the reliability and relevance of evidence obtained from third-party pricing sources? Are there other factors that are applicable in determining the reliability or relevance of evidence obtained from third-party pricing sources?**

#### Reliability

In addition to the factors listed on pages 45-46 of the Staff Paper, Interactive Data believes that the following three factors may assist auditors in determining reliability:

- *The number and experience of evaluators at the third party pricing source.* Financial reporting standards require that fair value measurements employ "the assumptions that



# Interactive Data

market participants would use.”<sup>2</sup> However, auditor’s engagement teams typically are not deeply trained or experienced in valuation techniques.<sup>3</sup> As noted above, pricing sources have varying levels of evaluations staff size, market experience and valuation expertise. Therefore, it is advisable to require that auditors take such differences into account when assessing reliability of third-party information.

- *The extent of documented controls applied by the third party in its evaluation process.* Such controls can include, among other things, procedures for validating market data and other externally sourced information, supervisor and management review of evaluated prices, and procedures for identifying suspect data and resolving possible outliers. Assessing the existence, rigor, application and efficacy of such controls can help an auditor discern reliability of third party information.
- *The third party's procedures for, and historical results from, responding to security-level challenges to their evaluated prices.* Market participants, including evaluation service clients, comprise an essential source of market information for estimating fair value of securities. A formal challenge process is a structured channel through which client companies can present third-party pricing services with relevant information (e.g., trades not subject to reporting and public dissemination) that the third party might otherwise have no access to. The existence and active operation of a challenge process is therefore, in our opinion, a useful indicator of reliability of a third-party pricing service. In addition, composite records of a third party source’s historical responses to price challenges from its clients can provide insight into the quality of the third party’s fair value estimates over time. For example, a consistently high rate of adjusting prices in response to challenges can indicate that the service’s original prices were not of high quality. We believe that a third party’s challenge process and outcomes are among the factors auditors should consider when determining reliability.

## Relevance

For determining relevance of third-party pricing information during an audit, in addition to the factors outlined in the box on pages 45-46, Interactive Data recommends that a new standard both:

---

<sup>2</sup> FASB ASC subparagraph 820-10-35-9: “A reporting entity shall measure the fair value of an asset or a liability using the assumptions that market participants would use in pricing the asset or liability, assuming that market participants act in their economic best interest.”

FASB ASC subparagraph 820-10-05-1C: “Because fair value is a market-based measurement, it is measured using the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk. As a result, a reporting entity's intention to hold an asset or to settle or otherwise fulfill a liability is not relevant when measuring fair value.”

<sup>3</sup> “Auditors are trained in financial accounting and auditing not valuation techniques/skills.” Lisa Milici Gaynor and Jacqueline S. Hammersley, “Auditing Accounting Estimates and Fair Value Measurements: Academic Perspective”. Presentation delivered at meeting of the PCAOB Standing Advisory Group, October 2, 2014.



1. Embrace a rules-based, risk-driven sampling approach.

We believe the goals of Auditing Standard 12, “Auditing Standard No. 12: Identifying and Assessing Risks of Material Misstatement,” would be best served by directing auditors to focus their attention on those areas of financial reporting that pose the highest risks to reliable financial reporting.<sup>4</sup> With regard to fair value measurements, the highest risk areas might include complex securities, thinly traded securities, and instruments for which no current market data is available.<sup>5</sup>

Numerous fixed-income instruments are neither actively traded nor actively quoted. Such instruments may be valued based on comparable securities for which current market data is available. Estimating fair value for such securities requires making judgments regarding the criteria for identifying comparables and the appropriate price or yield spread to apply between a comparable and the security in question. In such instances, it is impractical for an auditor to test exhaustively each individual fair value estimate and assess all associated input data. Consequently, a selective, risk-driven approach is likely to be both more effective and more efficient than an effort to validate every security price reflected in a company’s financial statements. The selective approach requires that the auditor develop an understanding of the assets, liabilities, and third-party data in order to assess which data is most relevant for assessing accounting risk. This spares both auditors and third parties wasted effort processing large amounts of data that may have little value for assessing the risk of material misstatements.

2. Recognize that market information, including price quotations from market participants, may have differing degrees of relevance to fair value.

For any security or category of securities, market quotations from different participants, and even reported trades, may not all be equally representative of fair value. Interactive Data believes that evaluation best practice includes assessing each incoming market data point against the complete

---

<sup>4</sup> The Securities and Exchange Commission, in Interpretive Release 33-8810, “Commission Guidance Regarding Management’s Report on Internal Control Over Financial Reporting Under Section 13(a) or 15(d) of the Securities Exchange Act of 1934”, stated: “...(T)his principles-based guidance enables management to tailor its evaluation so that it focuses on those areas of financial reporting that pose the highest risk to reliable financial reporting. We believe that a tailored evaluation approach that focuses resources on areas of highest risk will improve, rather than degrade, the effectiveness of many company’s evaluations and improve the timeliness of material weakness disclosures to investors.” Although directed toward company management (financial statement preparers), we believe the principles are equally relevant for auditors.  
<http://www.sec.gov/rules/interp/2007/33-8810.pdf>

<sup>5</sup> Jason K. Plourde, Professional Accounting Fellow, Office of the Chief Accountant, U.S. Securities and Exchange Commission, Remarks before the 2011 AICPA National Conference on Current SEC and PCAOB Developments (<http://www.sec.gov/news/speech/2011/spch120511jpkp.htm>) “For example, more complex and less actively traded securities may have a higher assessed risk of misstatement due to the uncertainties about their value and larger possible ranges of values that market participants may attribute to them. Within Level 2 securities, there may be a difference in management’s process for valuation of securities that trade less actively because of the different assessed risk of material misstatement. ICFR (internal control over financial reporting) should be responsive to increasing risk of misstatement (including misstated disclosure) in more complex securities and those securities that are not actively traded.”



set of other available data for the same or similar securities, in an effort to prevent outliers from affecting the fair value estimate. Interactive Data believes that a new standard should aim to encourage auditors to consider a third party's procedures for assessing market information when assessing the relevance of evidence obtained from third-party pricing sources.

**Question 41. Are there other approaches to testing evidence obtained from third-party pricing sources that the staff should consider?**

We suggest that the staff consider recommending back-testing fair value estimates against observable market data, where available. Ideally, the evaluated price for a specific security is compared over a specific time interval with reported transaction prices for the same instrument. Before comparing prices, the trade data should be filtered and organized to match key parameters of the corresponding third-party evaluations: trade size (retail or institutional lot), trade type (dealer buy trades compared with bid-side evaluations, dealer sell compared with offer-side, etc.) and date and time of day if applicable. Statistical examination of the differences between evaluated prices and transaction prices can provide insights into the degree to which the third-party information reflected observable market activity. If trade information is not available for the specific issue in question, similar types of testing can be performed using market quotes, activity on other bonds of the same issuer, or activity on comparable instruments.

**Question 42. How could a potential new standard differentiate between a third-party pricing source and a specialist?**

Both the Staff Paper and existing audit standards distinguish between specialists and other types of service organizations, including pricing services<sup>6</sup>. Interactive Data believes that a new or amended standard covering fair value measurements should maintain this distinction. In particular, a new or amended standard should recognize the current differences between the roles each type of third party performs, and the responsibilities each assumes, whether engaged by companies or by auditors.

Interactive Data provides evaluated prices to assist our clients in estimating fair values for assets and liabilities required to be measured at fair value under applicable financial reporting frameworks. As the Staff Paper observes, pricing services provide uniform price information and other data about financial instruments to the public for a fee. Fair value estimates produced by pricing services are not "bespoke"; instead of engaging the third party specifically to develop an

---

<sup>6</sup> AU 328, Auditing Fair Value Measurements and Disclosures, section 12, states in part:

When obtaining an understanding of the entity's process for determining fair value measurements and disclosures, the auditor considers, for example:....

- The extent to which the entity's process relies on a service organization to provide fair value measurements or the data that supports the measurement. ...
- The extent to which the entity engages or employs specialists in determining fair value measurements and disclosures.





estimate, a company or auditor obtains information that is developed for, and widely available to, the public.

Specialists, on the other hand, are often engaged by a company and/or an auditor to develop independent estimates or assist in evaluating a company's estimate. AU sec. 336, *Using the Work of a Specialist*, defines a specialist as: “a person (or firm) possessing special skill or knowledge in a particular field other than accounting or auditing.” That standard goes on to mention appraisers among several types of specialists, and valuation among types of matters on which an auditor may consider using the work of a specialist.

This difference has important implications for the degree of interdependence between information available to the company and information available to a pricing provider or specialist, and for the procedures, controls and disclosures applicable to information obtained from each kind of third party.<sup>7</sup> In addition, specialists may assume expert liability for information they provide to their clients, whereas pricing services typically do not.

When framing a new standard, we recommend that the PCAOB be mindful of the differing degrees of responsibility that specialists, on the one hand, and pricing services, on the other, currently assume when providing information for fair value measurements. Along with reinforcing existing practice in which specialists create fair value estimates on a unique or custom basis while pricing services sell valuations and related data to the public, the standard could recognize that auditors may require more detailed disclosure of assumptions and models in connection with fair value estimates obtained from specialists than from other third-party sources.<sup>8</sup>

---

<sup>7</sup> Plourde, op cit.: “Management may need to perform different procedures and controls when considering the information obtained from pricing services regarding the fair value of financial instruments, than the types of controls it performs when considering information obtained from other specialists, such as those that provide information about the fair value of intangible assets in business combinations or about pension liabilities. For example, management may be more involved in the initial determination of assumptions used by an actuary to value its pension liability than in determining the assumptions that are used to value a financial instrument. Further, there may be more information routinely provided by other specialists such as actuaries regarding their methodology. Existing financial statement disclosure requirements in these areas may require management to reveal more detailed disclosures about assumptions and inputs than it would in the fair value context. For example, the discount rate and the expected long-term rates of return on plan assets for a pension liability are required to be disclosed.”

<sup>8</sup> Among other reasons, a valuation produced by a specialist might be more sensitive to changes in assumptions than a valuation from a pricing service, whose model may be fitted with observable market data.



**Question 43. Would the potential requirement address the various methods used by third-party pricing sources for determining fair value measurements of financial instruments (e.g., use of consensus pricing and proprietary models)?**

We believe there are sound policy reasons in favor of addressing third-party valuation methods within a potential requirement. While sensitive to the evolving nature of valuation practices and the beneficial force of innovation, we believe the following observations should be considered when formulating the new standard.

Consensus Pricing

In its simplest iteration, consensus pricing aggregates or averages prices submitted by dealers or other market participants, without performing rigorous checks on the validity of such submissions. Screening or filtering of price submissions flowing into a consensus price is often of a mechanical nature, focusing on the removal of statistical outliers. Such a methodology contrasts with Interactive Data's evaluated pricing approach, in which each piece of incoming information is regarded as a distinct input that must be validated and its significance determined by an evaluator. We believe that the diversity of market data creates an important role for human oversight in the analysis, weighting, and synthesis of such data for the creation of fair value estimates.

Additionally, we believe the consensus pricing approach is vulnerable to bias, or even manipulation, by certain market participants submitting raw data to the third party. This risk is illustrated by recent civil and criminal complaints alleging manipulation of widely used survey-based benchmarks for interest rates<sup>9</sup>, swap rates<sup>10</sup>, foreign exchange rates<sup>11</sup>, and other financial measures.

Interactive Data recommends that a new standard induce auditors to be sensitive to these differences in valuation approach. That could include applying additional tests and controls for assessing fair value measurements derived from consensus pricing - as is currently the case for other types of estimates that present relatively high risk of material misstatement.

<sup>9</sup> European Commission, *Introductory Remarks on Cartels in the Financial Sector*, December 4, 2013

[http://europa.eu/rapid/press-release\\_SPEECH-13-1020\\_en.htm](http://europa.eu/rapid/press-release_SPEECH-13-1020_en.htm)

United States Department of Justice, *ICAP Brokers Face Felony Charges for Alleged Long-Running Manipulation of LIBOR Interest Rates*, September 25, 2013 <http://www.justice.gov/opa/pr/icap-brokers-face-felony-charges-alleged-long-running-manipulation-libor-interest-rates>

"The Libor Settlements," *The Wall Street Journal*, February 13, 2013

<http://online.wsj.com/articles/SB10001424127887324616604578302321485831886>

<sup>10</sup> Collyer Bristow LLP, "Claims for ISDAfix manipulation". Lexology.com, October 23, 2014

<http://www.lexology.com/library/detail.aspx?g=f443ea5a-7afd-4eff-9de5-eb9b6a32c53f>

<sup>11</sup> U.K. Serious Fraud Office, "Forex investigation," July 21, 2014

<http://www.sfo.gov.uk/press-room/latest-press-releases/press-releases-2014/forex-investigation.aspx>

Jaimie McGeever, "Banks Boost FX Settlement War Chest to as Much as \$6.5 bln," *Reuters*, October 31, 2014 <http://www.reuters.com/article/2014/10/31/fx-investigation-banks-idUSL5N0SQ52D20141031>





### Proprietary Models

There is a common misconception that proprietary pricing models are synonymous with automated pricing driven by unobservable assumptions and inputs. In reality, proprietary models do not always signify a “black box” approach. Evaluated pricing, which relies principally on observable data, frequently employs proprietary models to support the evaluation process. Interactive Data views proprietary models as tools that make possible the disciplined incorporation of market data into the valuation process. Our evaluators utilize such tools to effectively group securities and apply observable data, such as reported trade prices, to produce market-based estimates of fair value. We advise that any guidance related to the use of proprietary models capture the distinction between automated “black box” approaches and models or tools used as a component of a process primarily based on observable market data.

### Summary

Interactive Data appreciates the opportunity to present our views on a potential new standard for Auditing Accounting Estimates and Fair Value Measurements. We support the staff’s proposals to develop a new standard that would consolidate and augment provisions from a number of existing audit standards that address this subject. We believe the goals of reinforcing best practices in auditing fair value estimates and evidence obtained from third party sources, updating existing standards and removing perceived inconsistencies, and further integrating the requirements of the existing standards with those of the risk assessment standards would be best served by a new standard that:

- Encourages auditors to compare estimated values with observable market data when testing fair value estimates for reasonableness (rather than requiring use of a different third-party pricing source than management used to develop fair value estimates).
- Requires auditors to consider the number of evaluators, experience and expertise of, and the pricing methods used by, the third party, relative to the type of asset or liability being valued.
- Includes a number of factors (in addition to those listed in the Consultation Paper) that may assist auditors in determining the reliability and relevance of third-party information -- such as the number and experience of evaluators employed by a third party pricing source; documented internal controls over the third party’s evaluation process; the third party’s pricing challenge process and aggregate historical results of challenges submitted to it; focusing substantive fair value testing on carefully selected samples of assets and



liabilities that present relatively high levels of accounting risk; and recognizing that market quotations may differ in degree of relevance to a security's fair value.

- Maintains existing distinctions between the roles and responsibilities of specialists and other types of service organizations (including pricing services).
- Encourages auditors to take account of differences in valuation approach employed by third-party pricing sources.

We look forward to working with the staff, the PCAOB and the auditing profession on this important issue.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Hausman".

Andrew Hausman  
President, Interactive Data Pricing and Reference Data  
Interactive Data Corporation

November 21, 2014

Mr. James R. Doty  
Chairman  
PCAOB  
1666 K Street, NW  
Washington, DC 20006  
USA

By email: [comments@pcaobus.org](mailto:comments@pcaobus.org)

Dear Mr. Doty,

**RE: Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements***

We would like to commend the Public Company Accounting Oversight Board (“PCAOB”) on the release of its Staff Consultation Paper on the audit of accounting estimates and fair value measurements.

We note the PCAOB’s references to the IAASB’s International Standards on Auditing (“ISAs”) and International Auditing Practice Notes (“IAPNs”) in the Paper. Both ISA 540<sup>1</sup> and IAPN 1000<sup>2</sup> are the result of global consultation and development, and we believe that the IAASB’s experiences in developing these, and the global feedback we received on them, will be informative to PCAOB’s deliberations.

The IAASB also sees the importance of continued consideration of the areas addressed by these pronouncements, particularly in the context of auditing financial institutions. The IAASB has, therefore, included in its Work Plan 2015–2016 a project on financial institutions, which relates to a number of issues identified in the PCAOB Staff Consultation Paper. This project is an area of focus for the Basel Committee on Banking Supervision<sup>3</sup> and the International Association of Insurance Supervisors, as well as other respondents to the consultation on our *Strategy and Work Program*.

IAASB Staff, and as necessary, a Working Group (including experts in this area), will initially focus on considering the suggestions of the Basel Committee on areas where more specificity may be needed to address audits of banks (including the relationship between banking supervisors and auditors). This will likely include the use of fair value accounting and related estimates, including but not limited to impairment and loan loss provisioning, and ISAs particularly relevant to the audits of banks and other financial institutions, including ISA 540. The wider applicability of these potential changes beyond financial institutions (including to ISA 540 or other ISAs as necessary) will also be considered as part of the initial information-gathering activities. In addition, other specific issues identified relating to ISA 540 include:

<sup>1</sup> ISA 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures*

<sup>2</sup> IAPN 1000, *Special Considerations in Auditing Financial Instruments*

<sup>3</sup> In 2013, the BCBS wrote to the IAASB to acknowledge the common interest in recognizing the importance of banks’ external audits to financial stability and to share the BCBS’s views on how to enhance the quality of external audits (<http://www.bis.org/bcbs/commentletters/ifac45.pdf>).



International Auditing  
and Assurance  
Standards Board

- The application of professional skepticism (e.g., how auditors obtain audit evidence, challenge and test management's assumptions and considerations about possible management bias);
- The work effort on accounting estimates and fair values that have not been identified as significant risks or the risk of material misstatement due to fraud; and
- The implications of the use of third-party pricing sources.

The project also includes specific consideration of audit issues relevant to insurers, particularly given the accounting developments in this area<sup>4</sup> and the significance of these changes to insurers.

At the same time, the IAASB will discuss the process to develop non-authoritative material, including IAPNs, to enable this Working Group to recommend an appropriate way forward to address special audit considerations for financial institutions, as well as to consider whether these considerations are more broadly applicable to other entities.

Information-gathering activities will commence in 2014, with an initial discussion by the IAASB on the topic planned in early 2015.

We believe the PCAOB and the IAASB should seek opportunities to share perspectives on our respective projects, while recognizing and respecting the individual mandates of each board. Accordingly, we welcome opportunities to discuss any matters in connection with these projects.

If you have any questions regarding the above, please do not hesitate to contact me at [ArnoldSchilder@iaasb.org](mailto:ArnoldSchilder@iaasb.org), or alternatively, Kathleen Healy, IAASB Technical Director, at [KathleenHealy@iaasb.org](mailto:KathleenHealy@iaasb.org) or (212) 471-8713.

Yours sincerely,

A handwritten signature in blue ink that reads "Arnold Schilder".

Prof. Arnold Schilder  
Chairman, IAASB

CC: Martin F. Baumann, Chief Auditor and Director of Professional Standards, PCAOB

---

<sup>4</sup> See the International Accounting Standards Board's project on insurance contracts (<http://www.ifrs.org/current-projects/iasb-projects/insurance-contracts/Pages/insurance-contracts.aspx>).



November 3, 2014

Ms. Phoebe W. Brown  
Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, DC 20006-2803

Re: Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*

Dear Ms. Brown:

The Independent Directors Council and the Investment Company Institute<sup>1</sup> appreciate the opportunity to comment on the Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements* (“Staff Paper”). IDC and ICI strongly support the Public Company Accounting Oversight Board and its mission to oversee audits of public companies, including funds, in order to protect the interests of investors and further the public interest in the preparation of informative, accurate and independent audit reports. Funds as investors – and investors in funds – rely upon audits to provide independent assurance that financial statements are fairly stated in conformity with generally accepted accounting principles.

We commend the Board’s information gathering approach as it considers changes to audit standards relating to auditing accounting estimates and fair value measurements. We believe the Pricing Sources Task Force, on which representatives from several mutual fund advisers participated, provided valuable input to the Board regarding funds’ use of pricing vendors and the information those vendors make available to funds and auditors. Further, we believe that the Staff Paper, which describes several alternative

---

<sup>1</sup> IDC serves the fund independent director community by advancing the education, communication, and policy positions of fund independent directors, and promoting public understanding of their role. IDC’s activities are led by a Governing Council of independent directors of Investment Company Institute member funds. ICI is the world’s leading association of regulated funds, including mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors and advisers. ICI’s U.S. fund members manage total assets of \$17.2 trillion and serve more than 90 million U.S. shareholders, and there are approximately 1,900 independent directors of ICI-member funds. The views expressed by IDC in this letter do not purport to reflect the views of all fund independent directors.

Ms. Phoebe W. Brown  
December 11, 2013  
Page 2 of 4

approaches to possible standards changes, and the related Roundtable with the Standing Advisory Group evidence a thoughtful and deliberative approach to standard-setting.

The Staff Paper is of considerable interest to fund directors who are responsible for the valuation of the fund's securities<sup>2</sup> and fund adviser personnel who make the day-to-day valuation determinations. Fund audit committee directors are responsible for overseeing the fund's financial reporting process and the audit of the fund's financial statements. Given that substantially all of an investment company's assets are comprised of investment securities, auditing fair value measurements is of paramount importance to ensuring that the fund's audited financial statements fairly present the fund's results and financial position.

We have concerns that the Staff Paper suggests a change from the current risk-based approach to planning and performing audits, and a change from the way audit firms use national level pricing groups to support audit engagement teams. We believe these changes would result in a substantial increase in the audit procedures to be performed on audit evidence obtained from third-party pricing sources, but that such increase would not necessarily improve audit quality or the level of assurance provided. We also encourage the PCAOB, as it considers changes to its audit standards, to take into account the unique nature of investment companies. We elaborate on these points below.

### *Risk Based Testing Approach*

Auditors to SEC-registered investment companies typically obtain fair value measurements for the fund's securities from third-party pricing vendors different than the pricing vendor used by the fund.<sup>3</sup> Such fair value measurements represent independent estimates which are used by the auditor to corroborate the fair value measurements used by the fund.

Consistent with the PCAOB's risk assessment standards, auditors use a risk-based approach to plan the nature and extent of audit procedures to be performed. For example, under a risk-based testing approach the auditor may stratify the fund's portfolio by the degree of measurement uncertainty and focus on those securities with the greatest degree of measurement uncertainty. We believe such risk-based testing approach provides a high level of assurance in a cost-effective manner.

The Staff Paper indicates that the staff is considering how a potential new standard could address audit evidence obtained from third-party sources. Under the contemplated approach, the auditor would first evaluate the reliability of the evidence by considering factors such as the expertise of the third-party pricing

---

<sup>2</sup> See Section 2(a)(41)(B) and Rule 2a-4 under Investment Company Act.

<sup>3</sup> See SEC Codification of Financial Reporting Policies Section 404.03, *Accounting, Valuation and Disclosure of Investment Securities*, Accounting Series Release No. 118 (December 23, 1970).

Ms. Phoebe W. Brown  
December 11, 2013  
Page 3 of 4

vendor in the asset class, the methods used by the third-party and whether the methods are consistent with the valuation framework. The auditor would then evaluate the relevance of the evidence obtained from the third-party source by making a number of determinations set forth in the Staff Paper (*e.g.*, when the fair values are based on transactions in comparable assets, how those transactions are identified and considered comparable).

We are concerned that the specific language describing the auditor's evaluation of evidence obtained from third-party sources suggests that the auditor would be required to evaluate the relevance of the evidence for *each* fair value measurement obtained from the third-party pricing vendor to the same extent regardless of the measurement uncertainty posed by the security. In particular, the Staff Paper indicates that the auditor should evaluate whether the evidence provided by the third-party source is relevant to *the fair value measurement* (emphasis added). A requirement to do a "deep dive" to evaluate the relevance of the evidence for *each* fair value measurement obtained from the third-party pricing vendor would substantially increase the audit procedures to be performed and related audit documentation on securities with low measurement uncertainty. Such a requirement would increase audit fees, without a commensurate increase in audit quality.

#### *Reliance on National Level Pricing Groups*

We understand many audit firms have established a national level pricing group that supports engagement teams conducting audits. The national level group assists audit engagement teams to determine that the valuations provided by the third-party pricing vendor for corroborative purposes are consistent with the required fair value measurement framework. For example, the national level group may perform an analysis of prices obtained from third-party pricing vendors, interact with the pricing vendor to obtain a better understanding of its controls and methodologies, or assist the audit engagement team's evaluation of audit differences. In certain instances the national level pricing group may itself develop estimates of fair value for particular securities.

The Staff Paper, at Question 2, indicates that the staff is considering the interaction between national level pricing groups and audit engagement teams and how that interaction may comport with the engagement partner's responsibility under the PCAOB's risk assessment standards. We believe the use of national level pricing groups may enhance the audit firm's understanding of third-party pricing vendors and the fair value measurements they provide. Further, these groups may facilitate consistent application of audit standards across different engagement teams. Audit standards should not discourage the establishment of national level pricing groups and audit engagement teams' reliance on their work. Without the audit engagement team's ability to rely on the specialized expertise of national level pricing groups, we are concerned audit quality would decrease. If each audit engagement team were to hire additional staff, the cost of the audit would increase, thereby increasing fund expenses and reducing fund returns to the detriment of fund shareholders.

Ms. Phoebe W. Brown  
December 11, 2013  
Page 4 of 4

*Unique Nature of Investment Companies*

We encourage the Board, as it considers changes to its audit standards, to consider the unique nature of investment companies and fund families. Investment companies calculate their net asset value daily for purposes of issuing and redeeming fund shares. Funds have well established controls designed to ensure that their securities are valued consistent with SEC requirements and generally accepted accounting principles. Fund families typically have several different funds organized and offered by an investment adviser and the funds may collectively hold hundreds or thousands of different securities.

\* \* \* \* \*

If you have any questions, please contact the undersigned, Amy Lancellotta, at (202) 326-5824 or amy@ici.org, or Gregory Smith, at (202) 326-5851 or smith@ici.org.



Amy B.R. Lancellotta  
IDC Managing Director



Gregory M. Smith  
ICI Senior Director – Fund Accounting



## King Valuation Services, LLP

11102 Fawn Lake Parkway  
Spotsylvania, VA 22551-4667  
(540) 972-4704

[alfredmking@verizon.net](mailto:alfredmking@verizon.net)

Comments on: “Auditing Accounting Estimates and Fair Value Measurements”

While I have had many years’ experience in Fair Value Measurements, even my best friend would not think of me as an expert on Auditing of Accounting Estimates. Therefore my comments are strictly limited to Fair Value (“FV”).

In my judgment the auditing of Fair Value information differs significantly from auditing of other types of accounting estimates. As an example there is obvious professional judgment involved in development, and then review of, bad debt reserves. But accountants, whether auditors or in management, can use their basic business judgment; it does not require special training or experience to understand accounts receivables, collection efforts, bad debt experience or anticipated bad debt losses. There are no courses, standards, or professional designation required for bad debt analyses. The same lack of need for specialized knowledge applies, in my opinion, to the auditing of most accounting estimates - other than FV.

On the contrary, the study of valuation is a separate curriculum in many academic and professional programs; there are a number of professional valuation organizations with their own standards and designations; likewise several professional journals are devoted solely to valuation.

I agree totally with the paper’s statements and assumptions about the importance, and difficulty, in auditing or reviewing FV information. Over the past 12 years, since the issuance of SFAS 141 & 142, I have personally been involved in hundreds of FV issues in financial accounting and reporting. Most of those have been reviewed by my clients’ auditors.

The real problem with both development of FV information, and its subsequent auditing, is that by definition most FV estimates deal with anticipated future events. Nobody can foretell the future, neither valuation specialists nor auditors. Further, past events may not provide any real insight into judgments about the future.

Virtually all disagreements between clients and their valuation experts on one side, and auditors (this includes SEC and PCAOB) on the other is that reasonable people can differ in how they view future events.

This is most clearly delineated in litigation involving valuation issues: as just one example take a typical divorce situation where the husband runs the company, and the wife wants half of the firm's 'value' in a divorce settlement. Almost always the husband's valuation expert views the company as just one step short of Chapter XI, while the wife's valuation expert believes the company will be the next Twitter or AliBaba. Who is correct? How can you 'audit' these judgments? The ultimate solution is NOT 'auditing' but rather an independent judgment by a court, judge and/or jury.

I firmly believe that valuation judgments cannot be audited in the same way that auditors review payroll, or capital expenditures or depreciation expense. In effect auditing or review of FV information is comparable to review or auditing of actuarial assumptions for pensions, etc. Auditors untrained in actuarial science would shrink from auditing the reserves of a life insurance company.

I feel that auditing or review of Fair Value information is directly comparable.

PCAOB should separate Fair Value, and develop a separate standard or standards dealing specifically with Fair Value. The knowledge base required to perform FV analyses, whether originally or as a reviewer, requires background and experience which most auditors simply do not possess – and are not likely to possess in the future.

Trying to write a Standard for 'auditors', lumping in standard accounting estimates with Fair Value estimates, is only going to confuse things more. As written, the proposal is not really going to help valuation specialists who have to prepare FV information for their clients. Even more so, it will not alleviate the problems which PCAOB has uncovered in its examinations of FV information.

Respectfully submitted,

/s/ *Alfred M. King*

ALFRED M. KING



**KPMG LLP**  
345 Park Avenue  
New York, N.Y. 10154-0102

Telephone	+1 212 758 9700
Fax	+1 212 758 9819
Internet	www.us.kpmg.com

November 3, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Staff Consultation Paper**  
***Auditing Accounting Estimates and Fair Value Measurements***

Dear Madam Secretary:

KPMG LLP is pleased to submit its comments about the Public Company Accounting Oversight Board's (the PCAOB or the Board) Staff Consultation Paper - *Auditing Accounting Estimates and Fair Value Measurements* (the Paper). We welcome the opportunity to work with the Board, PCAOB staff (the Staff), and other stakeholders to improve audit quality through enhanced auditing standards.

We believe that, conceptually, the process that management uses to prepare accounting estimates, including fair value measurements, has common attributes that would enable the PCAOB to meaningfully address auditing of estimates under a single standard. Therefore, we generally support the approach being considered by the Staff to develop a single standard about auditing accounting estimates, including fair value measurements (the potential new standard), that would supersede certain existing auditing standards referred to in the Paper (specifically, AU 342, *Auditing Accounting Estimates*, AU 328, *Auditing Fair Value Measurements and Disclosures*, and AU 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*). While global auditing and accounting standard setters, including the PCAOB, have shifted toward principles-based standards, we do have a concern, however, that application may prove challenging if there is not a certain level of specificity in the potential new standard, given the differences among accounting estimates, including fair value measurements, that underpin financial reporting.

In addition, we believe that a potential new standard should take into consideration the availability of large amounts of data and how that data informs auditor judgment from the perspective of risk assessment and attainment of audit evidence. Our observations below reflect our experience analyzing large amounts of data related to financial instruments. However, we believe there are other areas where large amounts of data may be used in auditing accounting estimates. Developing a potential new standard that not only is comprehensive enough to address all types of accounting estimates, including fair value measurements, but also considers how large amounts of data informs auditor judgments, will



Office of the Secretary  
Public Company Accounting Oversight Board  
November 3, 2014  
Page 2

likely take a significant amount of time. Therefore, we believe that the Staff should explore amending certain auditing standards to provide auditors with sufficient clarity surrounding the relevance and reliability of third-party information in the near term, while continuing to seek input relevant to accounting estimates, including fair value measurements.

### ***General Views about a Potential New Standard***

We believe that an issuer's processes for developing the majority of accounting estimates, including fair value measurements, required by a financial reporting framework are conceptually similar to what is required of the auditor. Like management, the auditor identifies the specific information that is required (i.e., the data and assumptions), identifies a source of the information considering relevance and reliability, and determines how the information will be used (i.e., the method). Because of these similarities, we believe developing a single standard is the preferable approach to follow. However, we believe there are certain items the Staff should explore or consider when developing the potential new standard:

1. AU-C 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures*, builds on the requirements and application guidance of the risk assessment standards, which is a stated objective of the Staff in the development of a potential new standard.<sup>1</sup> We recommend that the Staff consider the specific items noted below from that standard when developing the potential new standard:
  - a. AU-C 540 contains application guidance to bridge certain terminology differences between the auditing standards and the financial reporting framework.<sup>2</sup> For example, the PCAOB's auditing standards use "methods, models and assumptions" without defining the terms, whereas the fair value accounting standard uses terms such as "approaches, techniques, and inputs."<sup>3</sup> Clarifying the definitions and refraining from introducing new and undefined terms, such as '*hard to value financial instruments*,' will permit the auditor to evaluate management's conformity with the financial reporting framework while meeting the Staff's expectations for increased auditor performance in the area of accounting estimates, including fair value measurements.
  - b. We agree that the testing approaches as described in the PCAOB's existing auditing standards remain appropriate. However, the Staff might consider an approach similar to AU-C 540, which directs the auditor to undertake one or more procedures to respond to the identified risk, rather than providing more direction on the application of any one testing strategy. We believe the focus

---

<sup>1</sup> Page 21 of the Paper.

<sup>2</sup> For example, see paragraphs A30 and A31 of AU-C 540, which address assumptions or inputs.

<sup>3</sup> Accounting Standards Codification (ASC) 820, *Fair Value Measurement*



Office of the Secretary  
Public Company Accounting Oversight Board  
November 3, 2014  
Page 3

should be more on the nature, timing, and extent of evidence responsive to the risk rather than increased emphasis on how to execute a testing approach.

2. We do not believe that all accounting estimates, including fair value measurements, should be presumed to always represent a significant risk, but rather urge the Staff to consider whether there are certain indicators that, if present, would point to a rebuttable presumption of a significant risk. If a significant risk has been identified, the Staff should consider providing auditors with specific requirements necessary in the circumstances.
3. Because of the inherent estimation uncertainty in certain accounting estimates, available audit evidence may be insufficient to reduce estimation uncertainty to a level commensurate with financial statement materiality. The Paper indicates that the Staff is considering emphasizing in the potential new standard that an independent estimate developed by the auditor is limited to outcomes within the range that are supported by sufficient appropriate audit evidence.<sup>4</sup> We are concerned that the inclusion of such a statement in the potential new standard may imply a level of precision that is not attainable. As noted above, the precision of the range is the result of inherent estimation uncertainty, and we believe that no one point within an acceptable range is necessarily distinguishable from another. Therefore, the potential new standard should acknowledge the variability and imprecision that exists within inherently imprecise estimates.
4. The Staff have suggested in the Paper that a potential new standard might require the auditor to evaluate whether the evidence obtained, at the asset or liability level (e.g., at the individual security level), is relevant to the fair value measurement, which includes determining: (a) whether the fair values are based on trades of the same instrument or active market quotations; (b) when the fair values are based on transactions of comparable assets or liabilities, how those transactions are identified and considered comparable; (c) when there are no transactions either for the asset or liability or comparable assets or liabilities, how the information was developed including whether the inputs developed represent the assumptions that market participants would use when pricing the asset or liability, if applicable; or (d) when the fair value measurement is based on a broker quote, whether the broker quote is from a market maker who transacts in the same type of financial instrument and is binding or nonbinding, with more weight placed on quotes based on binding offers.<sup>5</sup> We conceptually agree that the auditor has to obtain relevant audit evidence, however we are concerned with the Staff's suggestion that this level of detail is necessary at the individual security level to establish relevance, since we do not believe that such an approach is operational, and it does not appear to be justified from a cost/ benefit perspective, as it relates to audit quality.

---

<sup>4</sup> Page 41 of the Paper.

<sup>5</sup> Pages 45 and 46 of the Paper.



Office of the Secretary  
Public Company Accounting Oversight Board  
November 3, 2014  
Page 4

***Centralized Testing of Third-Party Pricing Vendor Information Used as Audit Evidence***

We commend the Staff for exploring ways a potential new standard might address circumstances where auditors obtain information from third parties, such as pricing vendors who provide evaluated prices of financial instruments. As discussed earlier, we live in a time where the ability to obtain large amounts of data, like pricing data from independent third-party pricing vendors, is a reality. Accordingly, a potential new standard should contemplate the persuasiveness of the evidence that large amounts of converging data can provide financial statement preparers and auditors.

Since August 2012, we have obtained and analyzed, on a monthly basis, pricing data for approximately 4.7 million fixed income securities that are priced by one or more of the four major third-party pricing vendors. The evaluated pricing information that has been obtained represents the population of pricing data available from the four major third-party pricing vendors. An objective of our analysis over the last two years was to understand and support, through empirical evidence, the relationship between price convergence (we have defined convergence to mean generally three or more prices within a specified range relevant to an asset class, over a specified period) and reliability of audit evidence. Further, we also sought to understand the valuation methodologies and techniques, including descriptions of inputs, used by the third-party pricing vendors and evaluated whether such methodologies and techniques are consistent with the principles of ASC 820, which is similar to the requirements suggested in the Paper.

As a result of our analysis, we have the following observations that we believe should be considered in developing a potential new standard:

- Applying our definition of convergence as described above, over 80 percent of the fixed income securities priced by multiple third-party pricing vendors converged over a rolling six-month period (our test period). Based on the extent of our analysis, we do not believe performing additional audit procedures on converged prices would improve audit quality.
- Central to any reliability conclusion is the fact that each of the third-party pricing vendors' evaluated prices are developed independently from any one issuer's financial reporting process, and of the other pricing vendors, using sufficiently similar methods and inputs. This is significant because the process is free of management bias and the similarity of methods and inputs supports effective comparison (e.g., convergence of pricing) of the data. Therefore, when the converged evaluated price includes management's price source, we believe that the reliability of the evidence is not diminished.
- In an over-the-counter market, convergence of prices provided by more than one third-party pricing vendor is indicative of liquidity in the financial instrument, and generally results in lower price estimation uncertainty. The liquidity and demand for these securities reduces the estimation uncertainty.



Office of the Secretary  
Public Company Accounting Oversight Board  
November 3, 2014  
Page 5

- When there is a high degree of correlation between the prices of a security provided by third-party pricing vendors, we believe the evidence corroborates that market data is readily observable and that the vendors are considering similar inputs in a consistent manner. Information provided by third-party pricing vendors provides transparency into market information not otherwise available to investors, issuers, and auditors. As is evident through our data analysis, in the vast majority of cases the third-party pricing vendors are processing market data in a consistent fashion to produce converged evaluated prices. The consistency of the observed convergence ranges also illustrates a similar weighting of the available information in the evaluation process. Therefore, if third-party pricing vendors' prices converge, we believe that audit testing of specific valuation inputs is not necessary to establish the reliability of the information.

Based on our experience, centralized testing of third-party pricing data can provide relevant reliable information to an engagement team that will validate initial risk assessments and provide a final valuation conclusion. Moreover, performing these audit procedures centrally provides consistency in these conclusions, which we believe improves overall audit quality.

### ***Management's Use of Specialists***

We believe that AU 336, *Using the Work of a Specialist*, provides the auditor with a sufficient framework to evaluate the work of management's specialist. The existing framework includes a requirement for the auditor to understand the methods and assumptions used and to make appropriate tests of data provided to the specialist, taking into account the assessment of control risk among other requirements. The assessment of control risk is appropriately directed toward management's oversight of specialists and selection of assumptions. Therefore, we agree that the PCAOB should clarify in the potential new standard that management is responsible for all assumptions.

As noted in the Paper, the Staff is considering expanding the requirement under AU 328 related to testing assumptions developed by management's specialist, such that it would apply more broadly to information provided by specialists for accounting estimates.<sup>6</sup> We believe that a requirement for an auditor to test information developed by management's specialist in all cases as if it were produced by the company is not necessary. The extent of such testing should be based on the auditor's risk assessment including an assessment of the specialist's independence and objectivity.

---

<sup>6</sup> Page 37 of the Paper.





Office of the Secretary  
Public Company Accounting Oversight Board  
November 3, 2014  
Page 6

### ***Other Matters***

#### Evaluating the Issuer's Methods Used to Develop an Accounting Estimate

We are supportive of a requirement for the auditor to evaluate the issuer's methods used, including evaluating whether the methods are in conformity with the financial reporting framework. However, we question a requirement to evaluate whether management's methods are '*accepted within the company's industry*,'<sup>7</sup> as facts and circumstances for a specific issuer may be more relevant than the facts and circumstances for the issuer's industry.

We encourage the Staff to consider paragraph 8 of AU-C 540 and the related application guidance which directs the auditor to first consider whether a method is prescribed by the financial reporting framework and then consider professional judgment and industry guidance.<sup>8</sup>

#### Identifying Assumptions Not Used by Management

We believe that the Staff should consider a requirement similar to paragraph 15(a) of AU-C 540, which requires the auditor to evaluate how management has considered alternative assumptions or outcomes and why it has rejected them or how management has otherwise addressed estimation uncertainty in making the accounting estimate, rather than require the auditor to '*identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate*.'<sup>9</sup> The potential requirement described in question 28 of the Paper, as currently written, would be impractical to apply, since there are a multitude of assumptions not used by management.

#### Timing and Extent of Audit Procedures

With respect to the timing and extent of audit procedures, the Staff should consider adding specificity to the potential new standard about which assertions may be appropriate to test at other than period end, and the nature and extent of work necessary to extend a conclusion, including the precision necessary to extend a conclusion from interim to period end. In practice, we have found that the extent of procedures necessary to extend the conclusion is the same as that required by the original conclusion, which impacts the benefit of concluding before the measurement date.

---

<sup>7</sup> Page 33, potential amendment (a), of the Paper.

<sup>8</sup> Paragraphs A24 and A25 of AU-C 540.

<sup>9</sup> Question 28 of the Paper.





Office of the Secretary  
Public Company Accounting Oversight Board  
November 3, 2014  
Page 7

### Specificity in Description of Requirements

Several of the suggested requirements in the Paper use “test” or a variation of that word to direct auditor performance.<sup>10</sup> If the Staff expects specific procedures to be performed, a potential new standard should be more explicit in the description of the requirements.

### ***Potential Amendments to Existing Standards***

Much of the Paper is focused on third-party information used by both management and auditors. We believe there would be a benefit to audit quality if the Staff considered a near-term amendment to certain standards, such as Auditing Standard No. 15, *Audit Evidence*, to provide more clarity about the expectations regarding the relevance and reliability of audit evidence obtained from third parties.

Question 13 of the Paper asks whether the auditing standards sufficiently address matters such as the information systems at third parties, controls management has over the work of third parties, and the controls at third parties, when an issuer uses information obtained from a third party. We agree that once third-party information is housed in an entity’s information system, internal controls are relevant. However, we don’t believe it is necessary to test internal control over financial reporting that extends beyond the boundary of the entity’s information system. Issuers often use information commercially available in the preparation of their financial statements. If such information is commercially available from a reputable source, and used by management without bias, the auditor should be able to use the information without testing it as though it had been produced by the entity.

### ***Concluding Remarks***

We would welcome the opportunity to present to the Board and Staff our third-party pricing vendor data analysis in further detail, explore other opportunities where large amounts of data and its analysis may be used as audit evidence when auditing accounting estimates, and expand on our views of how centralizing certain audit procedures currently required to be performed at the engagement team level would improve audit quality.

\*\*\*\*\*

---

<sup>10</sup> See, for example, pages 27 and 38 of the Paper.



Office of the Secretary  
Public Company Accounting Oversight Board  
November 3, 2014  
Page 8

We appreciate the Board's and Staff's careful consideration of our comments. If you have any questions regarding our comments included in this letter, please do not hesitate to contact George Herrmann (212-909-5770 or gherrmann@kpmg.com) or Ilene Kassman (212-909-5667 or ikassman@kpmg.com).

Very truly yours,

**KPMG LLP**

cc:

**PCAOB**

James R. Doty, Chairman  
Lewis H. Ferguson, Board Member  
Jeanette M. Franzel, Board Member  
Jay D. Hanson, Board Member  
Steven B. Harris, Board Member  
Martin F. Baumann, Chief Auditor

**SEC**

Mary Jo White, Chair  
Luis A. Aguilar, Commissioner  
Daniel M. Gallagher, Commissioner  
Michael S. Piwowar, Commissioner  
Kara M. Stein, Commissioner  
James Schnurr, Chief Accountant  
Brian T. Croteau, Deputy Chief Accountant  
Julie Erhardt, Deputy Chief Accountant  
Daniel Murdock, Deputy Chief Accountant

November 3, 2014

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

Re: Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*

Dear Office of the Secretary:

McGladrey LLP appreciates the opportunity to offer our comments on the PCAOB's August 19, 2014 Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*. We support the PCAOB's decision to evaluate whether existing PCAOB standards relating to accounting estimates and fair value measurements can and should be improved.

### **Single Comprehensive Standard**

We are generally supportive of a single, comprehensive standard that addresses all accounting estimates including accounting estimates involving fair value measurements. Given the variability and range of complexity and estimation uncertainty among accounting estimates, however, a comprehensive standard should be principles based. Further, the principles of AU 336 governing the use of a specialist should be preserved regardless of whether a single comprehensive standard is developed.

If a new standard is developed, we believe that the three approaches common to both standards (i.e. testing management's process, developing an independent expectation, and reviewing subsequent events) should be retained. However, when there is high estimation uncertainty, it is more appropriate to test management's process than develop an independent expectation because the range of reasonable measurements may exceed materiality.

### **Estimation Uncertainty**

Accounting estimates vary widely as to the level of estimation uncertainty involved in the estimation process. It is important that varying degrees of estimation uncertainty be contemplated in the development of a new standard. The Financial Accounting Standards Board recognized the varying degrees of estimation uncertainty when it established the fair value hierarchy and established the requirement for entities to classify their fair value measurements in accordance with the hierarchy. Level 3 fair value measurements require more extensive disclosure than Level 1 or 2 fair value measurements. A fair value measurement is classified as Level 3 if any of the significant inputs are unobservable. An input is unobservable when it is not developed using market data, and instead is based on management's own assumptions. In situations where objective audit evidence to support a significant assumption does not exist, the auditor's attention should be focused on whether management's process for determining the estimate has been applied in a manner consistent with prior periods and the adequacy of the disclosures surrounding the estimate.

In some situations, there may be multiple sources of market data to support a significant assumption. While multiple sources of market data are often within a narrow range, even a relatively small change in an assumption can have a relatively large impact on the resulting measurement. In other words, alternative values for a specific assumption that are within a reasonable range for that assumption may

result in variability of the resulting accounting estimate that significantly exceeds materiality. This is another example of a situation that should be contemplated in the development of a new standard.

### **Use of a Specialist**

According to AU 336, a specialist is a person (or firm) possessing skill or knowledge in a particular field other than accounting or auditing. Many accounting estimates require skills or knowledge other than accounting or auditing. For example, the valuation of real estate requires knowledge of market conditions within a particular geographic area and for particular types of real estate (e.g., commercial property, residential property). The determination of the liability for a defined benefit pension plan requires actuarial skills and the pricing of investment securities involves knowledge of daily market activity and many types of financial instruments, which continually evolve in nature and complexity. For a Level 3 security, knowledge of how market participants would determine fair value in the absence of observable inputs is also necessary.

When using the work of a specialist in the audit of an accounting estimate, auditors historically have applied AU 336.12 which states that, while the auditor obtains an understanding of the methods and assumptions used by the specialist, the appropriateness and reasonableness of methods and assumptions and their application are the responsibility of the specialist. Further, the auditor also is required to make appropriate tests of data that has been provided to the specialist by management. As it relates to fair value measurements, AU 328 instructs the auditor to apply AU 336 and reiterates that the reasonableness of the assumptions and the appropriateness of the methods used and their application are the responsibility of the specialist. We believe the approach in AU 336 is appropriate since a specialist possesses skills or knowledge that the auditor does not have. However, when management has engaged a specialist to develop a fair value estimate, some believe that the auditor should deviate from the traditional interpretation of AU 336 and test the information obtained directly by the specialist and used to develop his or her assumptions as if the assumptions were developed by the specialist based on information provided by management.

It is common for management to engage a specialist to assist in the development of accounting estimates. In many cases, the specialist is bound by ethical standards to maintain objectivity in the performance of their work. Further, specialists often obtain data from sources external to the entity. For example, financial institutions generally engage real estate appraisers to determine the fair value of collateral for measurement of loan impairment on collateral-dependent loans. Although the real estate appraiser was hired by management, we do not believe it is necessary for the auditor to test the data that the appraiser obtained, for example, through a multiple listing service. In addition, after having evaluated and concluded that the appraiser is competent and objective and obtained an understanding of the appraiser's methods and assumptions, the auditor should be entitled to use the appraiser's work unless the auditor believes the appraiser's valuation is unreasonable.

### **Pricing Sources**

In the case of investment securities, many entities engage a third-party pricing source to provide fair value estimates. In the case of Level 1 securities, the third-party pricing source simply passes through the exchange-traded price. We do not believe that this is an accounting estimate or that the pricing source is a specialist in this circumstance. In situations where a particular investment is not traded on an exchange, then a pricing source provides a fair value estimate. These fair value estimates may be determined in a variety of ways including broker quotes, actual sales of similar securities and using proprietary models.

Some pricing sources provide valuations for millions of Level 2 and 3 securities to anyone who pays for their service. As a result, these valuations are not provided with any single user entity in mind. Instead, the pricing source is providing valuations to many market participants, based on their knowledge of the market and their expertise, and without reference to whether the purchaser of the pricing information is a

Office of the Secretary  
Public Company Accounting Oversight Board  
November 3, 2014  
Page 3

buyer or seller of the securities. In this case we believe the pricing source is acting as a specialist and there is little incremental benefit obtained from the auditor obtaining the proprietary models and testing the underlying assumptions (if that is even possible). Instead, we believe that the auditor should evaluate the competence and objectivity of the pricing source and obtain an understanding of the general methods and assumptions used by the pricing source to develop the estimate.

When determining the fair value of investment securities for which there is observable data (*i.e.*, Level 2 securities), there are often multiple pricing sources. We believe that when multiple pricing sources provide values that are within a narrow range, and the client's recorded value lies within that range, this constitutes sufficient appropriate audit evidence regarding the reasonableness of the fair value estimate.

When an entity engages a third party to prepare a valuation of a "hard-to-value" investment security exclusively for that entity, that third-party is a specialist. The auditor should evaluate the competence and objectivity of that specialist. Further, the auditor should obtain an understanding of the methods and assumptions used by the specialist. If the specialist obtained data from management, the auditor should test that data. However, having concluded that a specialist is competent and objective, the auditor should not be required to test data the specialist obtained from external sources. This view is consistent with paragraph 8 of AS No. 15 in that evidence obtained from a knowledgeable source that is independent of the company is more reliable than evidence obtained only from internal company sources.

#### *Pricing Source Constraints*

Many pricing sources have improved the level of transparency around their fair value estimation process in the last few years. However, there remain significant limitations in terms of the amount of data that the pricing sources can realistically make available to the large number of entities using their services. The practical limitations of the availability of data from pricing sources should be considered in the development of a new standard. If a new standard specifies procedures to evaluate evidence obtained from third-party sources, those procedures should be practical and achievable in light of the abilities of third parties to provide such information/data.

#### **Specific Procedures in Response to a Significant Risk**

When there is high estimation uncertainty leading to a significant risk, ISA 540 requires the auditor to perform additional procedures (*e.g.*, consideration of alternative assumptions that management considered and rejected). We disagree with the staff's belief that the procedures explicitly outlined in ISA 540 are "inherent in the requirements of Auditing Standard No.13." We believe that these procedures should be explicitly stated in any new standard.

We appreciate this opportunity to provide feedback on the consultation paper and would be pleased to respond to any questions the Board or its staff may have concerning our comments. Please direct any questions to John Keyser, National Director of Assurance Services, at 614.456.2805.

Sincerely,

A handwritten signature in cursive script that reads "McGladrey LLP".

McGladrey LLP



1095 Avenue of the Americas  
New York, NY 10036

**Peter M. Carlson**  
Executive Vice President and  
Chief Accounting Officer  
pcarlson@metlife.com

Office of Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

November 3, 2014

**Re: Request for Public Comment: Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements***

Dear Office of the Secretary:

MetLife, Inc. (“MetLife” and “we”) appreciates the opportunity to provide comments on the Public Company Accounting Oversight Board’s (“PCAOB”) Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements* (the “Consultation Paper”). MetLife is a leading global provider of insurance, annuities and employee benefit programs. Through its subsidiaries and affiliates, MetLife holds leading market positions in the United States, Japan, Latin America, Asia, Europe and the Middle East.

MetLife supports the PCAOB’s overall effort to undertake standard-setting initiatives to consider certain enhancements to improve the auditing of accounting estimates and fair value measurements. We are in agreement with developing a new single standard that addresses auditing fair value measurements, which will supersede the existing auditing standards. We believe that the existing auditing standards on fair value measurement (AU sec. 328) and derivative instruments, hedging activities, and investments in securities (AU sec. 332) should be replaced with a single new standard that combines and retains most of the guidance and requirements contained in the existing standards, especially with respect to requirements on the risk assessments, with certain targeted improvements, because:

- Most securities and derivative instruments are required to be measured at fair value, with such measurements determined in accordance with Accounting Standards Codification (“ASC”) Topic 820.
- While the fair value measurements of certain securities and derivative instruments can be complex, the methodology and techniques are generally consistent with those required in determining the fair value of other financial instruments under Topic 820.
- The development of a single standard should reduce inconsistencies and complexity.

While we support the development of a single standard providing auditing guidance and requirements for fair value measurements, we do not believe that accounting estimates should be included in the same standard. The inputs used to determine fair value measurements typically involve capital market assumptions such as interest rates, equity pricing, credit spreads and foreign exchange rates. Fair value measurements of financial instruments, based largely on these capital market inputs, have a standardized approach and methodology that is generally well-understood as specified under Topic 820.

The inputs used to determine accounting estimates can vary significantly and include a broad range of macro or micro environment factors, industry- or entity-specific factors, and other inputs depending on the nature of the accounting estimate. Additionally, we believe that the determination of accounting estimates included in financial statements is dependent to a larger degree on management's judgment based on its experience and knowledge about past and current events.

With respect to accounting estimates, we believe that the current standards contained in AU sec. 342, Auditing Accounting Estimates, should be retained, but can be enhanced with refinements on establishing specific requirements for risk assessments and auditor's responses. Specifically, we are in agreement that the enhanced standard should:

- Continue to perform risk identification and assessment procedures in accordance with Auditing Standard No. 12, *Identifying and Assessing Risks of Material Misstatement* (AS 12).
- Continue to perform procedures in accordance with Auditing Standard No. 13, *The Auditor's Responses to the Risks of Material Misstatement* (AS 13), to design and implement an audit response to the identified and assessed risks.
- Include most of the proposals that the Staff raised in the Consultation Paper with respect to the alignment with the risk assessment standards and substantive procedures for testing accounting estimates as targeted improvement to the current AU sec. 342, with the exception that the Staff should not consider requiring the auditors to identify assumptions that are not used by the management, which might be important to the recognition or measurement of the accounting estimates. We believe the auditor's responsibility should be limited to appropriately assessing the reasonableness of the accounting estimates made by the management. While auditors should have the responsibility to suggest any important assumptions that might have been overlooked by the management based on its auditing experience and expertise, such suggestions would not be considered as a requirement.

We acknowledge that the use of third parties for significant accounting estimates and fair value measurements has been a widely adopted approach in financial statement preparation. Often times, especially in the valuation of certain financial instruments, auditors and companies may use the same third party sources to derive certain significant unobservable inputs for valuation determination. We noticed that the Staff proposed evaluating the audit evidence obtained by third parties as if it were produced by companies, if auditors and companies use the same third party sources. However, we believe that this would be very challenging. Financial institutions, such as MetLife, may use third party sources when they lack information with respect to unobservable inputs, or use sources that have access to or have developed proprietary market information or models to properly value financial instruments. Requiring auditors to evaluate this information as if it were produced by companies would be impractical, given companies utilize information from third party sources in instances where they may lack the ability to obtain reliable information with respect to certain unobservable inputs.

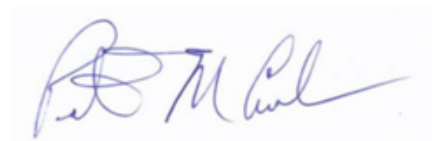
We encourage the Staff to consider alleviating the evaluation of the audit evidence obtained by third parties if the companies and auditors were to choose the same third parties as their sources of pricing or other valuation input. This would also encourage companies to use the most accredited, well experienced third parties as its sources of information in developing significant accounting estimates and fair value measurements.

Additionally, certain significant accounting estimates, especially those used in the determination of insurance liabilities, are often obtained from large, reputable third party sources as a result of widely recognized industry studies. Imposing auditing guidelines that require auditors to use different third party sources to obtain similar information may not be practicable and would raise significant cost benefit concerns.

Furthermore, some of the proposals made in the Consultation Paper with respect to third party sources seem to impose a heavy administrative burden on both companies and auditors, which may not justify the benefit it might bring. Examples include the demonstration of whether: (1) a broker quote is from a market maker who transacts in the same type of financial instrument, (2) how transactions are identified and considered comparable and (3) whether fair values are based on trades of the same instrument or active market quotations. We believe that many of these criteria are either a matter of fact or can be evidenced if auditors and companies chose the same third party sources.

We appreciate the opportunity to comment on the Consultation Paper and offer our perspective. If you have any questions on the contents of this letter, please do not hesitate to call me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter M. Carlson". The signature is fluid and cursive, with the first name "Peter" and last name "Carlson" being clearly distinguishable.

Peter M. Carlson

cc: John C. R. Hele  
Executive Vice President and  
Chief Financial Officer

Karl Erhardt  
Senior Vice President and  
General Auditor



## Officers

### Chair

David J. Neithercut  
*Equity Residential*

### President and CEO

Steven A. Wechsler

### First Vice Chair

David B. Henry  
*Kimco Realty Corporation*

### Second Vice Chair

Edward J. Fritsch  
*Highwoods Properties, Inc.*

### Treasurer

Timothy J. Naughton  
*Aradonkey Communities, Inc.*

### 2015 NAREIT Executive Board

Thomas J. Baltimore, Jr.  
*RLJ Lodging Trust*  
Wellington J. Denahan  
*Annaly Capital Management, Inc.*  
Ronald L. Havner, Jr.  
*Public Storage*

Lauralee E. Martin  
*HCP, Inc.*

Sandeep Mathrani  
*General Growth Properties, Inc.*  
W. Benjamin Moreland  
*Crown Castle International Corp.*

Dennis D. Oldak  
*Duke Realty Corporation*

Doyle R. Simons  
*Weyerhaeuser*

Robert S. Taubman  
*Taubman Centers, Inc.*

Owen D. Thomas  
*Boston Properties, Inc.*

W. Edward Walter  
*Hunt Hotels & Resorts, Inc.*

### 2015 NAREIT Board of Governors

Andrew M. Alexander  
*Wingarden Realty Investors*

Michael D. Baranello  
*LaSalle Hotel Properties*

William C. Bayless, Jr.  
*American Campus Communities, Inc.*

H. Eric Bolton, Jr.  
*MAA*

Trevor P. Bond  
*W. P. Carey Inc.*

Jon E. Bortz  
*Pebblebrook Hotel Trust*

Richard J. Campo  
*Camden Property Trust*

John P. Case  
*Realty Income Corporation*

Randall L. Churchey  
*EdR*

Douglas J. Donatelli  
*First Potomac Realty Trust*

Bruce W. Duncan  
*First Industrial Realty Trust, Inc.*

Lawrence L. Gellerstedt, III  
*Causus Properties Inc.*

Michael P. Glincher  
*Glincher Realty Trust*

William S. Gorin  
*MTA Financial, Inc.*

Steven P. Grimes  
*RPAI*

Philip L. Hawkins  
*DCT Industrial Trust Inc.*

Rick R. Holley  
*Plum Creek Timber Company, Inc.*

Andrew F. Jacobs  
*Capstead Mortgage Corporation*

John B. Kilroy, Jr.  
*Kilroy Realty Corporation*

Spencer F. Kirk  
*Essex Spar Storage, Inc.*

David J. LaRue  
*Forest City Enterprises, Inc.*

Stephen D. Lebovitz  
*CBL & Associates Properties, Inc.*

Peter S. Lowy  
*Westfield Corporation*

Craig Macnab  
*National Retail Properties, Inc.*

Christopher P. Marr  
*CubeSmart L.P.*

Richard K. Matros  
*Salma Health Care REIT, Inc.*

Donald A. Miller  
*Pindmont Office Realty Trust, Inc.*

Marguerite M. Nader  
*Equity Lifestyle Properties, Inc.*

Edward J. Pettinella  
*Home Properties, Inc.*

Colin V. Reed  
*Ryman Hospitality Properties, Inc.*

Joseph D. Russell, Jr.  
*PS Business Parks, Inc.*

Michael J. Schall  
*Essex Property Trust, Inc.*

Bruce J. Schanzer  
*Color Realty Trust, Inc.*

Nicholas S. Schorsch  
*American Realty Capital*

Thomas E. Siering  
*Two Harbors Investment Corp.*

Wendy L. Simpson  
*LTC Properties, Inc.*

Richard A. Smith  
*FelCor Lodging Trust Inc.*

David P. Stockert  
*Post Properties, Inc.*

Gerard H. Sweeney  
*Brandywine Realty Trust*

James D. Taiclet, Jr.  
*American Tower Corporation*

Amy L. Tait  
*Chairman, President & CEO*

Broadstone Net Lease, Inc.

Steven B. Tanger  
*Tanger Factory Outlet Centers, Inc.*

John T. Thomas  
*Physicians Realty Trust*

Thomas W. Toomey  
*UDR, Inc.*

Roger A. Waesche, Jr.  
*Office Properties Trust*

Chad L. Williams  
*QTS Realty Trust, Inc.*



## NATIONAL ASSOCIATION OF REAL ESTATE INVESTMENT TRUSTS®

October 31, 2014

Ms. Phoebe W. Brown  
Office of the Secretary  
PCAOB  
1666 K Street, N.W.  
Washington, D.C. 20006-2803  
[comments@pcaobus.org](mailto:comments@pcaobus.org)

### Delivered Electronically

### Re: Staff Consultation Paper, *Auditing Estimates and Fair Value Measurements*

Dear Board Members:

This letter is submitted by the National Association of Real Estate Investment Trusts® (NAREIT) in response to the solicitation for public comment by the Public Company Accounting Oversight Board (PCAOB or Board) with respect to the Staff Consultation Paper, *Auditing Estimates and Fair Value Measurements, August 19, 2014* (the Staff Paper).

NAREIT is the worldwide representative voice for real estate investment trusts (REITs) and publicly traded real estate companies with an interest in U.S. real estate and capital markets. NAREIT's members are REITs and other businesses throughout the world that own, operate and finance income-producing real estate, as well as those firms and individuals who advise, study and service those businesses.

REITs are generally deemed to operate as either Equity REITs or Mortgage REITs. Our members that operate as Equity REITs acquire, develop, lease and operate income-producing real estate. Our members that operate as Mortgage REITs finance housing and commercial real estate, by originating mortgages or by purchasing whole loans or mortgage backed securities in the secondary market.

A useful way to look at the REIT industry is to consider an index of stock exchange-listed companies like the FTSE NAREIT All REITs Index, which covers both Equity REITs and Mortgage REITs. This Index contained 209 companies representing an equity market capitalization of \$789 billion<sup>1</sup> at September 30, 2014. Of these companies, 169 were Equity REITs representing

<sup>1</sup> <http://www.reit.com/sites/default/files/reitwatch/RW1410.pdf> at page 21

Ms. Phoebe W. Brown  
October 31, 2014  
Page 2

91.8% of total U.S. listed REIT equity market capitalization (amounting to \$724.5 billion). The remainder was 40 publicly traded Mortgage REITs with a combined equity market capitalization of \$64.5 billion.

This letter has been developed by a task force of NAREIT members, including members of NAREIT's Best Financial Practices Council. Members of the task force include financial executives of both Equity and Mortgage REITs, representatives of major accounting firms, institutional investors and industry analysts.

NAREIT appreciates the PCAOB's efforts toward improving audit quality since its inception in 2002. However, NAREIT has significant concerns with the Staff Paper as drafted.

*Why is a change to the existing audit framework for auditing estimates warranted?*

NAREIT is not persuaded that a change to the audit framework for auditing estimates is necessary. In NAREIT's view, a single standard for auditing estimates and fair value measurements is an unworkable solution given the multiple iterations of accounting estimates in U.S. Generally Accepted Accounting Principles (GAAP). Additionally, NAREIT's member companies observe that external auditors currently perform a significant amount of audit work surrounding estimates pursuant to existing audit standards. For example, multiple member companies have indicated that the audit fees for auditing fair value estimates of real estate and auditing purchase price allocations in business acquisitions *exceed* the fees paid to the third party valuation companies that develop the estimates. In NAREIT's view, the suggestions in the Staff Paper would not pass a cost benefit test. The suggestions in the Staff Paper would only expand the work that auditors perform today, with no increase in the reliability or credibility of the audited financial statements. Further, as discussed below, there is no evidence that the existing auditing standards related to auditing estimates fail to detect significant errors in financial statements. In short, NAREIT sees no basis to conclude that increased audit work (and thus audit fees) would provide any measurable benefit.

*What is the underlying problem that the Staff Paper is trying to solve?*

NAREIT does not believe that the Staff Paper articulates a pervasive problem that would be solved by a change in auditing standards. The Staff Paper seems to be justifying a significant increase in audit work (and cost) based on the number of deficiencies found in the inspections process. While NAREIT acknowledges that PCAOB inspection reports have identified shortcomings in the audit work surrounding estimates, we observe that these criticisms could be caused by a number of factors:

- Auditors are not following the current standards;
- Auditors are performing the required procedures but are not adequately documenting the work that they perform;



Ms. Phoebe W. Brown

October 31, 2014

Page 3

- Auditors lack sufficient knowledge with respect to quantitatively sophisticated methods of developing estimates used by their clients or third party specialists and therefore are not capable of designing appropriate audit procedures to test the estimates; or,
- The expectations of the PCAOB inspection teams do not reflect the inherent uncertainties and imprecision that underlies estimates, including estimates of fair value measurements.

NAREIT is not aware of any significant audit failures (with “audit failures” defined as restatements of financial statements) driven by erroneous estimates in recent history that would necessitate standard setting by the PCAOB. NAREIT questions whether the PCAOB’s inspection findings in the areas of estimates, including estimates of fair value measurements, are more likely driven by auditor shortcomings relative to existing standards rather than problems with the auditing standards themselves.

As illustrated by FASB Member Larry Smith and former FASB Chairman Robert Herz<sup>2</sup> at the October 2, 2014 PCAOB Standing Advisory Group Meeting, estimates are prevalent throughout financial statements prepared under U.S. GAAP. Further, accounting estimates extend above and beyond fair value measurements and the GAAP hierarchy for fair value measurements that was introduced by FAS 157 *Fair Value Measurements*. Examples of accounting estimates within the real estate industry include: depreciation and amortization, asset impairment, reserves for tenant receivables, accrued expenses, deferred revenues, commitments and contingencies, contingent rental revenue, unrealized gains and losses on derivatives, foreign currency translation adjustments, changes in value for available-for-sale securities, etc. Developing estimates and fair value measurements is not new to the accounting profession. NAREIT fails to see where audits have failed to assess the reasonableness of the financial statements in accordance with U.S. GAAP.

*Why should external third parties be considered an extension of management?*

NAREIT strongly objects to the portions of the Staff Paper that suggest expanding the scope of audit work in the evaluation of processes and controls when management uses a third party specialist or pricing services. NAREIT continues to believe that the auditor’s testing of the accuracy of information provided to the third party is appropriate. Additionally, NAREIT considers the evaluation of information provided by third parties to be sufficient in accordance with current audit literature. However, we disagree with requiring the auditor to “test the information provided by the specialist as if it were produced by the company”<sup>3</sup> or to “evaluate the audit evidence obtained [from the third-party source] as if it were produced by the company.”<sup>4</sup> The idea that either management (in its assessment of the adequacy of the company’s internal controls over financial reporting) or the external auditor (in its evaluation of management’s assessment) could evaluate third parties’ processes and controls is simply not operational. NAREIT notes that existing audit guidance in AU 342.04 *Auditing Accounting*

<sup>2</sup> [http://pcaobus.org/News/Events/Documents/10022014\\_SAG/Herz\\_slides.pdf](http://pcaobus.org/News/Events/Documents/10022014_SAG/Herz_slides.pdf)

<sup>3</sup> Staff Paper, page 38, Management’s Use of a Specialist

<sup>4</sup> Staff Paper, page 44, Use of Third Parties

Ms. Phoebe W. Brown  
 October 31, 2014  
 Page 4

*Estimates* acknowledges that “[a]s estimates are based on subjective as well as objective factors, it may be difficult for management to establish controls over them.”<sup>5</sup> Finally, third party specialists and pricing services are separate entities from the companies that engage them. To assume otherwise is not factual.

By suggesting that the auditor treat third party specialists as part of the entity that they are auditing, the Staff Paper seems to be requiring management to understand and evaluate the operating effectiveness and sufficiency of controls at third party vendors. There are two clear business reasons why companies engage third parties to assist in the development of estimates: (i) the company does not have the requisite expertise or time to perform the work in-house; or (ii) the company’s management believes that the use of third parties enhances the objectivity and reliability of its estimates. Requiring management and the auditor to evaluate the third parties’ processes and controls as if they were part of the company itself would exacerbate the company’s resource constraints in the first scenario and potentially discourage the company’s efforts in the second scenario. As indicated earlier, in NAREIT’s view, the costs of implementing such audit requirements would far outweigh any incidental benefits.

*Isn’t an accounting estimate, by its very nature, merely one possibility in a range of reasonable outcomes?*

While NAREIT understands the importance of auditing estimates, we have to wonder whether the Staff Paper is attempting to reach a level of precision via the audit process that contradicts the inherent nature of the subject being audited.

Estimates, including fair value measurements, are used extensively in the preparation of real estate entities’ financial statements. Preparers, auditors and, most importantly, investors and other users of this financial information understand the imprecision that results from the use of estimates. In the context of financial reporting, management’s responsibility is to use its judgment regarding available information in making accounting estimates. AU 342.03 notes that “[m]anagement’s judgment is normally based on its knowledge and experience about past and current events and its assumptions about conditions it expects to exist and courses of action it expects to take.” The auditor’s responsibility is *not* to conclude whether the estimate is right or wrong, but to assess whether management’s accounting estimate is *reasonable*. Auditing Standard No. 14 *Evaluating Audit Results* states: “If an accounting estimate is determined in conformity with the relevant requirements of the application financial reporting framework and the amount of the estimate is reasonable, a difference between an estimated amount best supported by the audit evidence and the recorded amount of the accounting estimate ordinarily would not be considered to be a misstatement.”<sup>6</sup>

<sup>5</sup> <http://pcaobus.org/standards/auditing/pages/au342.aspx>

<sup>6</sup> [http://pcaobus.org/Standards/Auditing/Pages/Auditing\\_Standard\\_14.aspx](http://pcaobus.org/Standards/Auditing/Pages/Auditing_Standard_14.aspx)



Ms. Phoebe W. Brown  
 October 31, 2014  
 Page 5

*NAREIT's recommendation: Focus on targeted improvements to identified problems*

In the event that the PCAOB decides to move forward with some change to existing auditing standards, NAREIT recommends that the PCAOB use a targeted approach instead of wholesale changes to the audit framework for estimates. For example, if there are shortcomings in the use of the work of specialists, the PCAOB might consider focusing on auditing the work of specialists to further evaluate the expertise and/or objectivity of the specialist or auditing the inputs provided by the company to the specialist. Alternatively, if the shortcomings stem from inadequate documentation or insufficient subject matter knowledge, the PCAOB could consider steps that would target those issues.

As a starting point, NAREIT recommends that the PCAOB address how proposed changes to auditing literature would impact the auditor's consideration of materiality. NAREIT observes that the Staff Paper is silent on the assessment of materiality. The intersection of where estimates and materiality meet would appear to be a fundamental starting point for the PCAOB's focus in making targeted improvements to audit literature.

*Summary*

NAREIT appreciates the PCAOB's staff efforts in their endeavor to further audit quality. However, NAREIT does not believe that the PCAOB has identified the root cause that would necessitate further amendments to auditing standards. While the PCAOB cites fair value as a common area of "significant audit deficiencies<sup>7</sup>", NAREIT fails to see where these deficiencies have translated into restatements of previously reported financial results. Thus, NAREIT questions whether the Staff Paper simply represents rule-making for the sake of rule-making, without a clearly articulated underlying problem. As indicated above, in the event that the PCAOB concludes that further standard setting is required, NAREIT recommends that the Board make targeted improvements to specific sections of audit guidance as opposed to wide-ranging changes to the entire audit framework.

\* \* \*

We thank the PCAOB for the opportunity to comment on the Staff Paper. If you would like to discuss our views in greater detail, please contact George Yungmann, NAREIT's Senior Vice President, Financial Standards, at [gyungmann@nareit.com](mailto:gyungmann@nareit.com) or 1-202-739-9432, or Christopher Drula, NAREIT's Vice President, Financial Standards, at [cdrula@nareit.com](mailto:cdrula@nareit.com) or 1-202-739-9442.

---

<sup>7</sup> Staff Paper, page 3, Introduction

Ms. Phoebe W. Brown

October 31, 2014

Page 6

Respectfully submitted,

A handwritten signature in black ink, appearing to read "G. L. Yungmann", followed by a horizontal line.

George L. Yungmann  
Senior Vice President, Financial Standards  
NAREIT

A handwritten signature in black ink, appearing to read "Christopher T. Drula", written in a cursive style.

Christopher T. Drula  
Vice President, Financial Standards  
NAREIT



November 3, 2014

**VIA Email**

Office of the Secretary  
PCAOB  
1666 K Street, N.W.  
Washington DC 20006-2803.  
[comments@pcaobus.org](mailto:comments@pcaobus.org)

RE: PCAOB Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements*

**Introduction**

The National Venture Capital Association (“NVCA”) represents the vast majority of American venture capital under management.<sup>1</sup> Venture capital funds invest across the spectrum of company stages of development, typically from early stage startup through IPO or acquisition. We are pleased to respond to the above referenced Staff Consultation Paper for a number of reasons set out below.

The typical venture capital fund (“venture fund” or “VCF”) is organized as a limited partnership in which the venture capital firm serves as the general partner (“GP”) and investment manager. The majority of the investment capital in each fund comes from limited partner investors (“LPs”), the majority of whom are pension funds, foundations, endowments, insurance companies and other institutional investors. Most VCFs invest in start-up companies whose path to success is quite uncertain. Their progress is measured over years and the investment outcome is usually binary: a

---

<sup>1</sup> Venture capitalists are committed to funding America’s most innovative entrepreneurs, working with them to transform breakthrough ideas into emerging growth companies that drive U.S. job creation and economic growth. As the voice of the U.S. venture capital community, the National Venture Capital Association empowers its members and the entrepreneurs they fund by advocating for policies that encourage innovation and reward long-term investment. As the venture community’s preeminent trade association, NVCA serves as the definitive resource for venture capital data and unites its nearly 400 members through a full range of professional services. For more information about the NVCA, please visit [www.nvca.org](http://www.nvca.org).



Response of the National Venture Capital Association  
*Auditing Accounting Estimates and Fair Value Measurements*  
November 3, 2015

success that yields a return to the fund or failure and liquidation. Therefore LPs agree to a commitment of funds for a period that ranges from seven to ten years reflecting the long-term, illiquid nature of venture capital investing. The vast majority of venture investors expect, and in many cases, require audited financial statements prepared in accordance with GAAP.

NVCA's comments are informed by the active input of its CFO Task Force. This group is made up of the Chief Financial Officers and Administrative Partners of more than 100 of our member firms. Most of our CFO Task Force Members are CPAs and many were once auditors with leading national firms. They are responsible for the financial statements of hundreds of venture capital funds. Our task force members also offer a perspective on the audit process related to hundreds of companies across numerous industries represented in the diverse portfolios of the funds that they oversee and other career experiences.

Our members generally use Investment Company accounting, which requires that portfolio company investments be reported at fair value in accordance with ASC Topic 820. Many of these portfolio companies do not yet have proven business models or technology, making them more difficult to value based purely current financial metrics or external public market comparables. Many define new categories and are unique in their business models and products. Level 1 or even level 2 fair values are not achievable for the vast majority of fund assets for nearly the entire life of the portfolio company as a venture fund asset. Only upon an "exit" of the investment through its sale or issuance of securities to the public are level 1 or level 2 inputs available. Therefore, nearly all VCF assets are valued based upon level 3 inputs.

## **General Comment**

NVCA is responding to this paper for a number of reasons. Our members' funds and many of their portfolio company investments are crucial to the process of innovation and new business formation that fuels significant growth in the economy. Key to protecting investors' interests in venture capital is the focus on efficient use of resources, both human and financial. Efficiency in financial reporting, including in the audit process is therefore important. Time and money invested in the audit process is time and money that can't be invested in building portfolio company value. We are confident that venture fund investors understand and appreciate the great uncertainty involved in the point value of VCF assets.

While there are other areas in VCF financial statements that may require estimation, the auditor's procedures around the estimates of fair value for portfolio company investments is where most hours are spent. It is also the most likely subject of contention between the fund manager and auditors. Much of this contention is about the emphasis on the types of tools used in valuation and the difficulty of auditing the all-important qualitative judgment of venture capital professionals.



Response of the National Venture Capital Association  
*Auditing Accounting Estimates and Fair Value Measurements*  
November 3, 2015

Because of the uncertainty around the value of nearly all venture fund assets, additional resources devoted to inherently subjective estimates of the value of each asset has limited yield in terms of fund value. Therefore, we are driven by cost-benefit concerns -- which our investors share -- to focus on developing efficient, reasonably auditable valuation estimation in accordance with the provisions of ASC 820. We discuss this in greater detail below.

While the vast majority of funds and portfolio companies are private companies, our audit processes reflect the PCAOB's oversight of the audit firms. In the experience of our CFO members, audit firms generally apply the same procedures when auditing private companies as when auditing public companies.

We recognize the importance and the difficulty of the auditors' role in financial reporting. While our comments focus on the challenges we have faced with audits, and ways in which we believe the audit process can be improved, we do not intend to criticize the profession. From our experience there is no question that members of the audit profession regularly and consistently demonstrate a level of professional skepticism and independence that is consistent with the role of preserving public trust.

Our goal is to assist the PCAOB and the audit profession in improving both the quality of venture fund audits and the efficiency with which they are conducted. We believe that this is possible if the PCAOB emphasizes greater respect for professional judgment and less reliance on quantitative means of estimating fair value.

### **Role of the PCAOB**

We recognize the broad supportive role that the PCAOB plays in creating consistent quality in the audit process, particularly in the larger public accounting firms. This independent oversight provides meaningful value to the investors who are the primary users of our financial reporting. We share the PCAOB's and auditors' goal of delivering high quality financial information to our investors.

The process of testing and reviewing many of the largest firms' audit practices has caused audit firms to focus more diligently and more systematically on audit processes and approaches. Since the establishment of the PCAOB, audit firms have increasingly standardized audit procedures and centralized authority in their national offices. This has generally resulted in audits that favor quantitative metrics and models over more judgment-based factors.

Metrics and models can be useful to the funds in preparing financial estimates. They are some of the many tools that a VCF professional uses in developing estimates. However, in estimating the fair value of venture capital fund assets, there is no

Response of the National Venture Capital Association  
*Auditing Accounting Estimates and Fair Value Measurements*  
 November 3, 2015

substitute for the business acumen and seasoned intuition of the fund partners. Indeed, a GP's understanding of the factors that contribute to assessing the most appropriate fair value of any individual investment is a decisive element in an LP's decision to make the long-term commitment inherent in venture investing.

Unfortunately, the accounting firms' trend toward centralization and quantitative models in valuation has reduced the willingness (or ability) of audit partners to exercise discretion and professional judgment in their audits. We see this occur repeatedly even though sound judgment may in fact be the most important factor in auditing inherently uncertain estimates.

### **FASB Fair Value Standard --Topic 820**

NVCA has worked with the FASB on developing and evaluating the fair value standard since its first exposure draft in 2005. Through various means NVCA and its CFO Task Force members have had an ongoing and constructive dialogue with the FASB regarding the language and the interpretation of Topic 820. We have been encouraged by the FASB's openness to our perspective regarding some of the challenges of implementing Topic 820. Most of the comments in this letter have already been delivered to members of the FASB and its staff.

Topic 820 recognizes that, with the exception of level 1, fair value cannot be determined with precision. While the accounting standard requires that the fund account for its Level 3 investments using a point estimate, the standard recognizes that there is a range of possible values for a specific investment. This simply reflects reality. In practice, investing professionals read level 3 fair value estimates with the understanding that a point estimate for fair value implies a level of precision that is illusory. We recognize that this tension is inherent in assessing the fair value of assets that are difficult to value. However, it is necessary for all stakeholders in the reporting process, including regulatory agencies to appreciate the necessary judgments and subjectivity in these assessments.

### **Estimating and Auditing Fair Value in Venture Capital Funds**

The key language of Topic 820 creates a tension that plays out in venture fund audits. While Topic 820 requires a point estimate of fair value, it also requires that fair value be measured based on "the assumptions that market participants would use in pricing the asset..."<sup>2</sup> The market participants in early-stage venture-backed companies are the venture capital funds that purchase their stock. For a typical venture fund asset the most crucial "assumptions" that venture capital "market participants" use in either assigning a value or making an investment are based on the venture professionals'

---

<sup>2</sup> ASC Topic 820-10-35-9.

Response of the National Venture Capital Association  
*Auditing Accounting Estimates and Fair Value Measurements*  
November 3, 2015

subjective evaluation of business operations and company progress. Often the critical elements of this judgment are intangibles – quality and track record of the management team, size of a perceived future market, momentum in a market sector, etc. Venture professionals use a variety of quantitative and qualitative tools to assess a fair price for such stock and almost always assess the asset in terms of a range of values – high, middle and low – rather than a point estimate.

Valuation models have their uses, and we understand their utility for preparers of financial statements and their auditors.<sup>3</sup> However, the fair values that result from these models are based on assumptions that the user selects. They have no more inherent precision than fair values based on more subjective or judgmental inputs. Therefore, venture capitalists, the “market participants” and acquirers of portfolio company stock often do not use these models as the basis for pricing the securities in which they invest.

Over the past several years, our CFO Task Force members have observed a change in audit processes that has emphasized mathematical models over more subjective judgments. We understand the difficulty of auditing subjective judgments and we appreciate the need for audit firms to document the basis for their conclusions. However, our experience is that auditors in many cases are requiring that VCF fair values tie to a mathematical solution to the exclusion of more valid subjective factors. Ignoring the subjective assumptions of the market participants and basing fair values solely on quantitative assumptions that fit into a formula is arguably inconsistent with the requirements of Topic 820. Furthermore, it may also be that this focus on mathematical precision and documentation of what are essentially “management’s assumptions” is inconsistent with the applicable audit standard.<sup>4</sup> Finally, and perhaps most important, the implementation of Topic 820 by some accounting firms has failed to provide VCF investors with information on asset value that is worth the cost and effort it takes the fund to produce it.

Auditing estimates requires the exercise of judgment. Auditors need to have (or have access to) expertise with in-depth familiarity with the company’s long-term industry trends, opportunities and challenges, financial metrics upon which similar companies trade, etc. Auditing venture capital is particularly challenging because it

---

<sup>3</sup> These tools include, but are not limited to options pricing models, probability-weighted estimates, Monte Carlo simulations, and discounted cash flow, where any cash flow exists. When a portfolio company reaches a more advanced stage, market comparable data may be available.

<sup>4</sup> See AU Section 328.32. (“Audit procedures dealing with management’s assumptions are performed in the context of the audit of the entity’s financial statements. The objective of the audit procedures is therefore not intended to obtain sufficient appropriate audit evidence to provide an opinion on the assumptions themselves. Rather, the auditor performs procedures to evaluate whether the assumptions provide a reasonable basis for measuring fair values in the context of an audit of the financial statements taken as a whole.”)

Response of the National Venture Capital Association  
*Auditing Accounting Estimates and Fair Value Measurements*  
 November 3, 2015

requires an understanding of not only the venture investing space, but also of the types of companies in which the fund invests.<sup>5</sup> This is even more challenging when evaluating investments in groundbreaking companies with new business models or technologies where there is no existing market.

Still the standard requires that fair values be based on the assumptions that market participants use. Therefore, an audit of a VCF should be based on an auditor's exercise of a reasonable professional skepticism and independent judgment, in consultation with appropriate experts. An auditor should be able to audit fair values based on an evaluation of the assumptions, qualitative and quantitative, that the market participant actually uses and satisfy her or himself that those fair value estimates were arrived at in accordance with GAAP. This evaluation should not require extensive work by the preparer or the auditor to develop assumptions that fit a quantitative paradigm that a fund ("market participant") does not use.

Our comments reflect a broad trend in the audits of venture capital funds. We would be pleased to arrange a meeting or conference call with some of the NVCA CFO Task Force members and PCAOB staff to offer some specific examples of situations that they have experienced in dealing with their audit firms' interpretation of audit requirements. We believe these examples illustrate situations in which the additional effort and cost by the preparer and the added work done by the audit firm did not enhance the quality of financial reporting or utility of the financials to VCF investors.<sup>6</sup>

## Recommendations

Our observations regarding our experiences with audits of portfolio company valuations are representative of a broader set of issues with the auditors' processes and procedures. We offer the following suggestions for improving this process:

1. Auditors should be encouraged to use their professional judgment in evaluating the critical judgments made by VCF professionals rather than solely imposing a model-based fair value. Consideration of all quantitative and qualitative judgments made by market participants in setting values in open market transactions is key to a thorough and accurate assessment of the fair value of underlying VCF investments.

---

<sup>5</sup> And in the context of B2B companies, understand that company's business requires an understanding of trends in target customer companies.

<sup>6</sup> Our CFO Task Force Members also frequently note that field and local audit professionals have expressed similar frustration with the "tick and tie" requirements that usurp their ability to exercise their own professional judgment in auditing fair value estimates. We understand these requirements are driven by the need for documentation they must have in the event of a review of their audit work papers.

Response of the National Venture Capital Association  
*Auditing Accounting Estimates and Fair Value Measurements*  
November 3, 2015

2. Materiality and cost/benefit considerations should receive greater emphasis as an element of audit quality. It is critical that the cost to investors of documentation and audit procedures be commensurate with the usefulness of estimates that are inherently subjective, imprecise and variable.
3. We recommend that the PCAOB:
  - a. Publicly acknowledge the role of judgment and support the auditing profession in situations where there are factors that are inherently subjective. Emphasis should be on the audit process and assessment of all qualitative and quantitative factors, rather than a more narrow focus on specific mechanical models;
  - b. Consider a "safe harbor" for auditors who are able to establish ranges for estimated values. (For example, to the extent that the audit client's reporting is within the range and has provided reasonable explanation for how they determined their point estimate, audit requirements are met);
  - c. Encourage training programs on fair value and other areas where subjective estimates are regularly made; and
  - d. Create a private sector advisory group of preparers and auditors with expertise in the technical areas and industries where fair value determinations and other estimates are regularly involved to advise the Board.

## Conclusion

NVCA appreciates the opportunity to participate in the PCAOB's consultation process. We stand ready to work with the Board and the staff on this and other important matters. Please feel free to contact me at 703 778 9278 or [bfranklin@nvca.org](mailto:bfranklin@nvca.org) or John Taylor, NVCA Head of Research at 646 571 8185 or [jstaylor@nvca.org](mailto:jstaylor@nvca.org).

Sincerely yours,



Bobby Franklin  
President & CEO



October 29, 2015

**VIA Email**

Office of the Secretary  
PCAOB  
1666 K Street, N.W.  
Washington DC 20006-2803  
[comments@pcaobus.org](mailto:comments@pcaobus.org)

RE: Staff Consultation Paper, *Auditors' Use of the Work of Specialists*

INTRODUCTION

The National Venture Capital Association ("NVCA") represents the vast majority of American venture capital under management.<sup>1</sup> This letter is intended to both comment on the Staff Consultation Paper ("SCP") noted above and to supplement the comment letter NVCA submitted on the 2014 SCP, *Auditing Estimates Including Fair Values*. This letter updates our comments regarding audits of fair values of venture capital funds ("VCFs") and adds our perspective to the staff's more recent consideration of the link between auditors' use of the work of specialists and the audits of fair values. We hope this additional and updated information will be useful and that it will receive the staff's full consideration even though we are submitting it after the close of the official comment period.

We have reviewed the SCP on *Auditors' Use of the Work of Specialists* and we agree with the Chief Auditor's staff's conclusions that there is significant overlap

---

<sup>1</sup> Venture capitalists are committed to funding America's most innovative entrepreneurs, working with them to transform breakthrough ideas into emerging growth companies that drive U.S. job creation and economic growth. As the voice of the U.S. venture capital community, the National Venture Capital Association empowers its members and the entrepreneurs they fund by advocating for policies that encourage innovation and reward long-term investment. As the venture community's preeminent trade association, NVCA serves as the definitive resource for venture capital data and unites its nearly 300 members through a full range of professional services. For more information about the NVCA, please visit [www.nvca.org](http://www.nvca.org).

between issues arising from audits of estimates and auditors' use of specialists. Indeed, many of the concerns that prompted us to file a comment letter on the 2014 SCP, *Auditing Estimates Including Fair Values* involve the impact of valuation specialists. The Introduction section of NVCA's 2014 letter adequately frames the points I hope to convey in this letter. Since that letter is available in the PCOAB comment file,<sup>2</sup> I will dispense with repeating them here.

NVCA's members have largely completed the 2014 audit season. Through our CFO Task Force<sup>3</sup> we have received sufficient information to conclude that fair value audits remain a serious concern in the venture capital industry.

NVCA members recognize the importance and the difficulty of the auditors' role in auditing the valuation of assets that are inherently difficult to value. The task of arriving at a single-point fair value for VCF assets confronts the inherent subjectivity in valuing early stage (often pre-revenue) companies where established industry benchmarks and valuation metrics are often non-existent. This difficulty prompts auditors to use valuation specialists who are technically proficient in the theoretical principles of valuation, where many models and concepts have been developed to explain why market participants reach their conclusions as to valuation. However, valuation of VCF assets requires an understanding of venture investing and the innovative types of companies in which most funds invest. Therefore, many valuation specialists actually compound the auditors' challenge because they lack the venture-specific background needed to appropriately value venture fund assets.

As noted in our November letter, most securities held by a typical venture capital fund are "Level 3 assets" and must be reported to investors at fair value on a quarterly basis. The absence of solid information about the market for most VCF-held securities creates difficulties anticipated in Topic 820. As we noted in our November letter:

Topic 820 recognizes that, with the exception of Level 1, fair value cannot be determined with precision. While the accounting standard requires that the fund account for its Level 3 investments using a point estimate, the standard recognizes that there is a range of possible values for a specific investment. This simply reflects reality. In practice, investing professionals read Level 3 fair value estimates with the understanding that a point estimate for fair value implies a level of precision that is illusory.<sup>4</sup>

Nonetheless these fair values need to be audited to the specifications of top accounting firms, which naturally reflect PCAOB standards. Because of the difficulty

---

<sup>2</sup> [http://pcaobus.org/Standards/Staff\\_Consultation\\_Comments/017\\_National\\_Venture\\_Capital\\_Association.pdf](http://pcaobus.org/Standards/Staff_Consultation_Comments/017_National_Venture_Capital_Association.pdf).

<sup>3</sup> NVCA's CFO Task Force is made up of the Chief Financial Officers and Administrative Partners of more than 100 of our member firms.

<sup>4</sup> *Supra*, Note 2, page 4.



of auditing uncertain values of VCF assets, auditors have increasingly relied on quantitative inputs and the judgment of valuation specialists.

In many cases, valuation specialists provide independent expertise and analysis needed to meet the audit standard. Valuation specialists can also help to document what are usually highly subjective conclusions as to value. Increased use of valuation specialists as part of the audit process has helped auditors to better understand valuation models and the tools and terminology employed by valuation specialists in documenting fair value estimates.

While this is a positive development, it seems that many audit firms have relied too much on the judgments of their internal valuation specialists. This is unfortunate given the fact that many valuation specialists lack a complete understanding of Topic 820 and its emphasis on the assumptions that market participants use in valuation. In general, the models and methods specialists employ are often not among the tools or methods that market participants employ, especially for VCFs. The conclusions of audit firm valuation specialists are no more accurate than those of VCF professionals or their advisers who apply Topic 820 to VCFs on a regular basis.<sup>5</sup> Still it is not uncommon for an auditor to favor the specialists' valuation procedures over those of the reporting fund.

As a result, in some cases, the involvement of valuation specialists has inhibited rather than enhanced the audit process involving fair value determination. Undue reliance on internal specialists brings complexity, confusion, and delay into the audit process through unnecessary and sometimes even counterproductive procedures.

Many valuation problems arise, in our view, from an incorrect reading of the FASB standard, Topic 820. Examples include:

- the unquestioned use of "price times quantity" as the sole input when the security being valued is not actively traded;
- the use of option pricing models ("OPMs") when such models do not reflect market participant assumptions or the specific facts and circumstances associated with the investment being valued. Auditors sometimes refuse to accept valuations for venture capital portfolios unless an OPM is applied to each company in the portfolio, notwithstanding the fact that market participant funds have not used an OPM.<sup>6</sup>

---

<sup>5</sup> The technical authorities for determining fair value under GAAP can differ significantly depending upon the type of transaction being accounted for. A fair value determination for income tax purposes would be based upon still another set of rules or principles.

<sup>6</sup> This practice in particular became more widespread in 2012 when the AICPA published its initial draft of its Practice Guide entitled "Valuation of Privately-Held-Company Equity Securities Issued as Compensation" (commonly known as the "Cheap Stock Guide"). Although expressly "off-label" for use in applying Topic 820 to fund investments, this document became attractive to auditors as a means of making quantitative assessments of inherently subjective valuation approaches.



- A focus on precision in mathematical inputs to a model rather than far more subjective inputs even when the subjective inputs are far more material to the valuation.

In general, it seems that audits have become biased in favor of anchoring valuations to quantitative observable metrics -- perhaps to ensure that nothing in the audit work papers can be proven wrong -- whether those inputs would have a material impact on valuation or not.<sup>7</sup> In other cases, audit firms have insisted on the use of models so that the valuations used for financial reporting conform to the results of the model, independent of whether the results from the model actually represent Topic 820 "fair value," i.e., the amount that would be received in an orderly transaction based on market participant assumptions.

On the other hand, sometimes models are "massaged" so that the results of the model approximate the fair value estimate that resulted from using market participant assumptions. In these cases it seems that the use of the models is solely about the documentation. Clearly requiring this type of documentation to be prepared by fund personnel or the use of fund resources for outside valuation specialists does not improve the quality or reliability of the financial statements.

Therefore, we believe that both the quality and the efficiency of audits can be improved through PCAOB guidance that emphasizes limits to the role of specialists in the audits of VCF assets and the importance of subjective judgment and auditor discretion regarding hard-to-value assets, in general.

Appendix A is a compilation of three short examples, and Appendix B consists of two more in-depth case studies submitted by our task force members. We believe that the basic problems identified in our 2014 letter on auditing fair value are illustrated by these examples and case studies.

- Topic 820 requires that fair value be measured based on "the assumptions that market participants would use in pricing the asset...,"<sup>8</sup> not methods that valuation specialists prefer.
- Often the most crucial assumptions that venture capital market participants use in either assigning a value or making an investment are based on the venture professionals' judgment regarding intangibles – quality and track record of the management team, size of a perceived future market, momentum in a market sector, etc.

---

<sup>7</sup> When the AICPA "Cheap Stock Guide" raised awareness of these models the audit professions' increasing reliance on them coincided with anecdotes of additional scrutiny by the PCAOB of fair values estimates and the documentation thereof. This practice, analogous to a physician's practice of defensive medicine, merely imposes additional compliance costs as the price of getting a clean audit opinion.

<sup>8</sup> ASC Topic 820-10-35-9.

- VCFs use a variety of quantitative and qualitative tools<sup>9</sup> to assess a fair price and almost always assess the asset in terms of a range of values, not a point estimate.
- The fact that valuation models depend upon user-selected assumptions undermines the seeming objectivity and precision implied by their quantitative nature.

## Recommendations

1. Relating to Auditors' use of valuation specialists, we urge the PCAOB to:
  - a. Make it clear to auditors that valuation specialist, whether a third party or auditor-affiliated, should enhance not restrict the auditor's exercise of independent judgment in assuring that valuations are in keeping with the nuances of Topic 820 regarding hard-to-value assets. Auditors should look to valuation specialists and their tools as inputs to be considered in the audit process rather than outputs that can override the auditor's independent judgment or the fund manager's expertise in determining and documenting the fair value estimate in the first place.
  - b. Consider studying the accuracy of valuation specialists' conclusions on Level 3 fair values, e.g., back-test their findings to see to what extent a valuation specialist's conclusions resulted in fair value estimate that came closer to the valuations at which real transactions occurred within a 6- to 9-month period following the determination, relative to similar situations in which no valuation specialist was employed.
2. In addition we would like to reiterate and augment the recommendations in our November 3, 2014 letter as relevant to this SCP as well. We recommend that the PCAOB:
  - a. Publicly acknowledge the role of judgment and support the auditing profession in situations where there are factors that are inherently subjective. Emphasis should be on the audit process and assessment of all qualitative and quantitative factors, rather than a more narrow focus on specific mechanical models;
  - b. Consider a "safe harbor" for auditors who are able to establish ranges for estimated values. (For example, to the extent that the audit client's reporting

---

<sup>9</sup> These tools include, but are not limited to options pricing models, probability-weighted estimates, Monte Carlo simulations, and discounted cash flow, where any cash flow exists. When a portfolio company reaches a more advanced stage, market comparable data may be available.

- is within the range and has provided reasonable explanation for how they determined their point estimate, audit requirements are met);
- c. Actively engage with accounting and valuation trade organizations to encourage the development of training programs and materials that educate relevant professionals. Training and materials should approach fair value determinations with a focus on market participant assumptions. They should encourage specialists to base their analysis on a better understanding of the market participant's perspective and acknowledge that some determinations are inherently subjective; and
  - d. Create a private sector advisory group of preparers and auditors with specialists in the technical areas and industries where fair value determinations and other estimates are regularly involved to advise the Board.

## Conclusion

NVCA appreciates the opportunity to participate in the PCAOB's consultation process. We stand ready to work with the staff on this and other important matters. We would be pleased to arrange a meeting or conference call with some of the NVCA CFO Task Force members and PCAOB staff so that we can further explain examples of situations they have experienced in dealing with their auditor's interpretation of audit requirements and accounting rules.

Please feel free to contact me at 202 864 5925 or [bfranklin@nvca.org](mailto:bfranklin@nvca.org) or John Taylor, NVCA Head of Research at 646 571 8185 or [jstaylor@nvca.org](mailto:jstaylor@nvca.org).

Sincerely yours,



Bobby Franklin  
President & CEO

Appendix A – Examples  
Appendix B – Case Studies

*Auditors' Use of the Work of Specialists*  
National Venture Capital Association

## Appendix A – EXAMPLES

The observations and cases set out here and in Appendix B were collected from NVCA CFO Task Force members<sup>1</sup> and advisers to venture funds and other investment funds, with whom we work. These are examples, not a comprehensive compilation. As some of our member firms have broader mandates than just early stage venture capital some of these examples relate to later stage companies, some of which may have publicly listed securities. However, all of them involve auditing fair value and some involve an auditor's use of a valuation specialist. We believe these examples illustrate situations in which the additional effort and cost by the preparer and the added work done by the audit firm did not enhance the quality of financial reporting or utility of the financials to VCF investors.

1. Fund invested in a portfolio company using a combination of equity/warrants and debt. The portfolio company was reported as a Level 3 holding by the Fund. As part of its initial reporting of the investment, the Fund allocated the purchase price based upon its estimate of the relative fair value of debt and equity. In connection with this initial allocation, the Fund manager sought input from both the Fund auditor and portfolio company management and the allocation methodology was agreed to and the approach was determined to be thorough and sound.

Almost a year later, the portfolio company's auditor – from the same firm as the Fund's auditor -- decided they didn't like the analysis upon which the Fund and the portfolio company allocation was based. The portfolio company auditor questioned the approach that affected at most 1% of value being allocated to equity over debt. In other words, the maximum impact to the value of the Fund's equity could have been \$10 million on a \$1.5 billion enterprise value.

The portfolio company auditor required the portfolio company to engage an outside valuation expert to use a number of academic models including a Monte Carlo simulation. The portfolio company had concluded that the academic approach would require material extra effort (including significant external valuation support) and would have minimal impact on the results.

Weeks of discussion ensued among the portfolio company auditor, the portfolio company and the Fund with significant support provided by the Fund and its advisers to the portfolio company and its auditor. Effectively, the portfolio company auditor was uncomfortable with the arms-length nature of the original allocation agreement and determined that the original documentation for the allocation did not have sufficient support in academic literature. As a result, a massive "make-work" exercise had to be undertaken, which at the end of the day resulted in no change to the initial allocation. It is situations like this, where the audit firm is the primary beneficiary (through added audit fees) of the additional work they mandate that allow cynics to view the documentation requests as being particularly self-serving.

---

<sup>1</sup>The NVCA CFO Task Force is a working policy group made up of the CFOs of NVCA's venture firm members. About 100 of NVCA member firms participate in the Task Force.

2. Fund invested \$ 8 million in a convertible preferred security in September, at which time the underlying actively traded common stock was trading at \$ 4 per share. The Fund made the investment knowing that the underlying common shares were “thinly traded” and based their investment decision on the current and expected performance of the company, not on the “thinly traded” share price. Fund reported this investment as based on Level 3 inputs.

At December 31, Fund valued the investment at \$ 7.9 million given slight changes in expected cash flows and the interest rate environment. Auditor decided to trifurcate the value of the investment as the principle component, the coupon, and the conversion feature. At December 31, the underlying common was trading at \$ 1.50 because of announced degradation in performance (which was anticipated by the Fund based on their due diligence).

The auditor’s internal valuation specialists preliminarily concluded that the security should be valued at \$ 6 million due to the decrease in value of the option component of the security (using an option model with the \$ 1.50 share price). After the Fund manager had discussions with the auditor, and the auditor’s national office, auditor was able to realize that the security being valued was not actively traded and therefore should not be blindly valued using the “actively traded input”, but should be valued using market participant assumptions.

Using the inputs to the Fund’s valuation process and calibrating to the initial transaction, the Fund’s auditor ultimately concluded that the Fund’s estimation of the fair value at \$7.90 million had understated the value. The Fund therefore adjusted its fair value estimate to report the security as being valued at \$ 7.95 million.

3. In making its initial investment decision for its investment in portfolio company A, a Fund valued its investment using a scenario analysis—weighting various expected outcomes, i.e., level 3 inputs. The Fund had determined that the most likely acquirer of its position at that time would be another venture capital fund and the scenario based analysis is a common approach used by venture capital funds. As a result, the Fund Manager determined that continuing to use the same approach as at initial investment or “entry” was appropriate. Therefore, at its first reporting date, the Fund used a similar scenario analysis taking into account calibration at entry and changes in expected outcomes. Notwithstanding the fact that the Fund’s methodology was consistent with market participant assumptions in the exit market, the Fund’s auditor initially insisted that investment be valued solely using an option model. Only after extensive discussion with the auditor and the auditor’s national office that it was concluded that the fund’s approach used market participant assumptions and was an acceptable approach to value the investment.

*Auditors' Use of the Work of Specialists*  
National Venture Capital Association

## Appendix B – CASE STUDIES

### CASE STUDY 1

#### BACKGROUND:

The Company used in this example had been performing very well and actually had a number of outside investors willing to finance the Company at an uptick from the prior round of financing. The prior round, Series B, had a “post-money” valuation of approximately \$50M. Additionally, the Company closed on a Series C financing on December 18, 2013, or approximately two weeks before the valuation measurement date. Even though this information was communicated to the auditors working on the engagement, the auditors insisted that we run a series of OPM calculations on the Company to try to determine the appropriate valuation. The data table below provides further information regarding the wide array of values that were calculated using the OPM.

#### VALUATION SUPPORT:

##### Summary of Share Price by Valuation Technique

Actual Series C Price Paid \$ 1.127

Share Class	OPM Back Solve	OPM @Current FD	CASCADE	Original Issue Price
C	\$ 1.127	\$ 1.670	\$ 1.346	\$ 1.127
B	\$ 0.605	\$ 1.428	\$ 1.219	\$ 1.000
A	\$ 0.312	\$ 1.212	\$ 1.219	\$ 1.000
Common/Other	\$ 0.078	\$ 0.551	\$ 0.219	

Based on the instruction of our auditors, we ran an OPM Back Solve calculation to determine the implied equity value based on the price (\$1.127/share for the Series C) of the most recent financing. In this instance, the OPM Back Solve method implied that the equity value of the Company would be \$34M, a value that was 55% below the current fully diluted post money valuation of \$75M.

This valuation level would have resulted in a write down of our holdings to approximately 30% below our current cost basis. Given that the recent round was led by a new outside investor, and additional new investors were eager to invest at an uptick, we felt strongly that this calculation was not indicative of the correct value of the Company as of the measurement date.

Additionally, we also ran an OPM based on the current fully diluted post money valuation. Due to downside preferences in place to protect the new investor, the OPM calculation in this instance would actually have resulted in a write up to the current round of financing that closed just prior to the valuation date. This OPM calculation was again deemed to be inappropriate as the outside investor priced the round independently within weeks of the valuation date and therefore was deemed to pay a fair price for the shares.

#### CONCLUSION:

After performing numerous OPM calculations on approximately fifteen portfolio companies, including the example discussed above, it was determined that it was not appropriate to use this model to value companies held within our portfolio. The example above is a good illustration of the wide level of variations that are produced when using an OPM based valuation technique. In using the OPM valuation technique for this specific company, we observed valuations that were both well above and well below the current price paid for shares of the Company within weeks of the valuation measurement date. After a significant amount of time working on OPM calculations and discussing them



with valuation specialists at the auditing firm, the auditors agreed with our original thesis that the investment should have been held at the Series C value.

In general, it is very difficult to determine the correct level of volatility for OPMs of early stage companies like most venture capital investments. With this major input difficult to determine, it is hard to say that the results of the OPM are reliable in the determination of valuations for these types of companies. We communicated to the auditors on numerous occasions that venture capital companies are valued by investors on a fully diluted basis, which therefore makes the output of the OPM calculations difficult to use in measuring the fair value of a company. We were still asked to perform OPM calculations on fifteen portfolio companies even though at the end of the audit not one OPM valuation was used as support for the fair market value of any of our portfolio companies.

## CASE STUDY 2

On 11/1/2012, PortCo held the first closing of its \$25M Series D financing round at \$275M post-money valuation [# common stock equivalents on a fully diluted basis times \$4.4009 per share, or +139% of prior round price]. The price (or pre-money value of \$250M) was set by a new institutional investor that had no previous investment in PortCo. The Series D Preferred Stock had a 1x senior preference to the other classes of outstanding preferred stock, and converted to common 1:1. The financing was oversubscribed. The company was performing very well (and better than it had at the time of its Series C financing priced at 1.843 per share). This PortCo had made substantial business progress since the closing of its Series C financing round. Venture Fund participated in the financing at its full *pro rata* share. The term sheet for the deal was agreed to and signed on 10/12/2012. The Price from the term sheet is copied below:

Price:

The "Original Purchase Price" will represent a fully-diluted pre-money valuation of \$250 million (including an unissued reserved employee pool representing 5.0% of the fully-diluted post-money capitalization) and a fully-diluted post money valuation of \$275 million. A capitalization table showing the Company's capital structure immediately following the Closing is attached.

The judgment of the Venture Fund's GP was that this very recent outside-led financing round was clearly the best market data in existence to support the Venture Fund's 12/31/12 valuation of PortCo.

However, because PortCo's valuation was approximately 5% of the Venture Fund's total NAV -- not an unusual situation in VCFs -- our audit firm required us to create a mathematical model to support our valuation. They asked us to prepare an OPM backsolve, even though the OPM backsolve is not the method used by any venture investor to price this or any other financing round.

We ran the model, which concluded with an Implied Total Equity value of \$136M, a number substantially lower than the \$250M pre-money value of the recently closed financing. Obviously this was a problem, because the judgment of the Venture Fund's GP was that the investment was now more valuable than it had been at the time of its prior year Series C financing round priced at \$1.843 per share.

We ran the model, which concluded with an Implied Total Equity value of \$136M, a number substantially lower than the \$250M pre-money value of the recently closed financing, and only slightly higher than the \$100M post-money value of the prior round. Obviously this was a problem, because the judgment of the Venture Fund's GP was that the investment was now significantly more valuable than it had been at the time of its prior Series C financing round priced at \$1.843 per share (approximately \$100m total). Indeed the fund GP placed the value at the more recent Series D \$250 pre-money valuation.

PortCo's current operating metrics projected 2013-2014 forward revenue much higher than the company's 2010 revenue. Also, as noted, the Series D round was led by an independent institutional investor.

Since our audit firm required a mathematical model to substantiate our 12/31/12 valuation, they then asked us to prepare a PWERM to support our GP's judgment that the investment should be valued at the price recently paid for its Series D preferred shares. We complied with their request and created a PWERM analysis. We were able to find assumptions that could be supported by market data (M&A and IPO comparables) and our GP was able to support his probabilities for each scenario of the PWERM analysis. In the end the valuation of securities that we calculated using the PWERM was within an acceptable range of our original proposed valuation which was based on the recent Series D financing round, and the Valuation Group at our auditor signed off on our audit report. This process took a significant amount time from both the Venture Fund CFO and Fund GP. It also took over two weeks for the audit firm to further question the analysis and review the model's assumptions. All of this substantially delayed the issuance of our audit report.





Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, DC 20006-2803

November 3, 2014

**RE: PCAOB Staff Consultation Paper: *Auditing Accounting Estimates and Fair Value Measurements***

Dear Madam Secretary:

We appreciate the opportunity to comment on the Public Company Accounting Oversight Board's ("PCAOB" or "Board") Staff Consultation Paper: *Auditing Accounting Estimates and Fair Value Measurements* (the "Staff Consultation Paper"). We commend the Board and its staff for its use of a staff consultation paper, as we believe it can be an effective mechanism for obtaining feedback from stakeholders early in the standard-setting process. We further commend the Board and its staff for its continued outreach, including the Standing Advisory Group ("SAG") public meeting held on October 2, 2014.

## Overview

The Staff Consultation Paper discusses certain challenges related to auditing accounting estimates, including fair value measurements; describes the staff's preliminary views concerning the potential need for change; and presents potential revisions to the PCAOB's auditing standards. In particular, the staff is considering developing a single auditing standard related to auditing accounting estimates and fair value measurements that would supersede AU 328, *Auditing Fair Value Measurements and Disclosures* ("AU 328") and AU 342, *Auditing Accounting Estimates* ("AU 342"), and certain or all of AU 332, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* ("AU 332"). The Staff Consultation Paper outlines a single standard that could be designed to:

- Align with the PCAOB's risk assessment standards;<sup>1</sup>
- Generally retain the approaches to substantive testing from AU 328 and AU 342, but include audit requirements that would apply to all accounting estimates, including fair value measurements;
- Establish more specific audit requirements relating to the use of third parties in developing accounting estimates, including fair value measurements; and
- Create a more comprehensive standard related to auditing accounting estimates, including fair value measurements, to promote greater consistency and effectiveness in application.

We support standard-setting in this area, including the concept of a single auditing standard to address the auditing of accounting estimates, including fair value measurements. We believe that it is important to acknowledge that, in developing a single auditing standard, there may be a need for more specific guidance related to specific types of accounting estimates, including fair value measurements. Our view is reflective of the fact that fair value measurements are a type of accounting estimate; therefore, the overall audit principles should be similar. However, the way in which estimates of fair value measurements are developed may differ from how other types of estimates are developed, and these differences could affect the nature and extent of the audit procedures to be applied. For example, an estimate of the price of a

<sup>1</sup> See PCAOB Auditing Standards No. 8 through No. 15.



security may be based on the consensus of what buyers in the marketplace are willing to pay for the security. The nature and extent of the audit procedures over this type of estimate would be different compared to audit procedures when a specialist uses company specific assumptions (as a proxy for market participants) to develop an estimate related to goodwill or intangible assets.

We believe that any enhancements to the existing auditing standards should be principles-based to adapt to the continuing evolution of accounting standards and estimates and consider the inherent uncertainty of accounting estimates, including fair value measurements. Therefore, we believe that enhancements to the related auditing standards should:

- Reflect the auditor's risk assessment when determining the sufficiency and appropriateness of the cumulative nature of audit evidence;
- Promote audit quality and work to narrow, or at least not expand, any expectation gap;
- Consider the wide range of accounts that include some level of estimation uncertainty and the varying levels of complexity and risk associated with different accounting estimates;
- Recognize that accounting estimates may be subject to a significant degree of measurement uncertainty; and
- Be operational under the current and future constructs of the capital markets and relevant market participants.

We are supportive of the overall project and agree with much of the direction in the Staff Consultation Paper. For example, we are supportive of aligning a potential new standard with the Board's risk assessment standards and the direction of the amendments being considered to those standards. In this letter, we have included certain suggestions around some of the specific requirements described in, or implied by, the Staff Consultation Paper to address what we see as potential practical challenges not only in the audit process but in the overall financial reporting process. We have organized our observations and recommendations into the following topical areas:

- Management's specialists
- Third-party pricing services
- Other matters

### **Management's specialists**

A company's management can utilize specialists to develop estimates that are typically complex or highly subjective in matters that require expertise outside of accounting. Examples include:

- A company with pension, post-retirement, or post-employment benefit plans may use actuaries to develop assumptions, calculate the suggested financial position and expenses, and assist in developing information for the disclosures.
- A company with mineral interests may use engineers to perform geological analyses to estimate the level of reserves.
- A company with environmental exposures may use specialists to estimate the environmental liabilities.

As noted in the Staff Consultation Paper, the staff is exploring whether to include audit procedures to address information developed and provided by a specialist employed or engaged by a company related to accounting estimates. If a company uses a specialist to develop an accounting estimate and the auditor



chooses to review and test the process used by management to develop the estimate, the Staff Consultation Paper suggests that a potential new standard could direct the auditor to “...test that information as if it were produced by the company. In this case, the auditor would be required, as applicable, to evaluate the appropriateness of the methods, test the data used, and evaluate the reasonableness of significant assumptions, with respect to the information provided by the specialist.”<sup>2</sup>

We believe there is an important distinction between a specialist engaged by the company and a specialist employed by the company.<sup>3</sup> To the extent that a specialist is employed by the company, we agree that information provided by that specialist should be viewed, and tested, as having been produced by the company. We also agree that audit procedures are necessary when a company engages a specialist, but we believe that the nature and extent of such procedures should be different than when the specialist is employed by the company. We believe there is a fundamental difference because specialists engaged by the company are typically more objective, bring a wider range of experience, and may operate within a set of professional standards. We focus our comments in this section on specialists engaged by management.

#### *Test the information*

We are concerned with a potential framework wherein information provided by a specialist engaged by management is treated as if it were produced by the company. First, such a requirement (to “test”) would appear to be different from a separate requirement in the Staff Consultation Paper which says, “[w]hen the auditor obtains data and significant assumptions from a third party, the auditor *should evaluate the relevance and reliability* of the data and assumptions in accordance with the requirements of Auditing Standard No. 15, *Audit Evidence* (“AS 15”).”<sup>4</sup> We believe the principles in AS 15 to evaluate relevance and reliability are appropriate when considering information obtained from third-parties, regardless of who has engaged that third-party. Second, we understand “information” to encompass data, models, and assumptions. As such, when a specialist engaged by management obtains information from another third-party, the Staff Consultation Paper’s use of the words “test information provided by the specialist” could be read to mean that the auditor is required to test information provided by that other third-party as well. While we acknowledge the requirements to evaluate relevance and reliability may differ depending upon the risk assessment and the third-party, for the reasons we stated above, we do not believe that the requirements to audit the information from specialists engaged by management should be the same as if the company produced the information.

#### *Use of AU 336*

Currently, when management engages a specialist and the auditor intends to use that specialist’s work, the auditor evaluates the specialist and their work under AU 336, *Using the Work of a Specialist* (“AU 336”). We believe that it is important to maintain the auditor’s ability to utilize AU 336 to obtain sufficient appropriate audit evidence when management engages a specialist; however, we would not be opposed to enhancements to AU 336. To that end, we note the staff’s intention to issue a staff consultation paper on the use of specialists, and agree with the staff that there is linkage between the specialist project and this project<sup>5</sup>; therefore, we believe it is important to consider the objectives of both projects concurrently.

<sup>2</sup> See *Staff Consultation Paper*, page 38.

<sup>3</sup> There are also specialists employed or engaged by the auditor. Auditors’ specialists are not discussed in this response.

<sup>4</sup> See *Staff Consultation Paper*, pages 40-41. (Emphasis added)

<sup>5</sup> See *Standard-Setting Agenda, Office of the Chief Auditor*, September 30, 2014, page 5.



Separate from enhancements to AU 336, we believe that the proposed requirement to test information provided by specialists engaged by management as if the information was prepared by the company will negatively affect an auditor's ability to use the work of a specialist engaged by management under AU 336. For example, while a specialist engaged by management provides the auditor with sufficient access to allow the auditor to "obtain an understanding of the methods and assumptions used by the specialist,"<sup>6</sup> that specialist may not be able or willing to provide the supporting information to enable the auditor to "test the information" as if it were produced by the company. As such, we believe the requirement could in essence limit, or in certain circumstances potentially eliminate, the auditor's ability to test the process used by management to develop the estimate<sup>7</sup> for many estimates for which management engages a specialist. Absent the occurrence of relevant subsequent events or transactions occurring prior to the date of the auditor's report,<sup>8</sup> this could essentially require the auditor to develop an independent expectation of the estimate to corroborate the reasonableness of management's estimate.<sup>9</sup> In this situation, a company could essentially be forced to work with two different specialists for each estimate – the specialist engaged by management to assist in management's development of an estimate, and the auditor's specialist who is assisting in developing an independent expectation to corroborate the reasonableness of management's estimate. This may result in unnecessary distractions for management during the financial reporting process and create resource constraints within the specialist community. For example, having two objective third-party actuaries separately calculating each company's pension liabilities, as opposed to the auditor's actuary focusing on understanding and evaluating the relevance and reliability of the information that poses a risk of material misstatement, will most likely not be effective or efficient.

Additional challenges may exist when applying the proposed requirement to attorneys engaged by the company that are not in the scope of AU 337, *Inquiry of a Client's Lawyer Concerning Litigation, Claims, and Assessments*. Companies may engage attorneys related to the development of estimates, but their engagement is typically not related to valuation. Their engagement is more of a subjective nature, and the practicality of testing the data provided by attorneys may be complicated by the nature of those engagements.

Rather than limiting or potentially eliminating the auditor's ability to test the process used by management to develop an estimate when management engages a specialist, we suggest that the staff develop additional guidance for the auditor to consider when testing the process used by management. Such guidance could emphasize the need to challenge the models and assumptions, and more clearly describe the auditor's consideration of alternatives and contradictory evidence.

This guidance could also acknowledge that there are different types of specialists who operate within different environments. Certain specialists, such as actuaries and real estate appraisers, currently operate within professional standards frameworks that could be considered when determining the level of additional audit work required of the auditor. We believe that the ongoing development of professional standards within the different specialist communities, including fair value measurements, provides additional benefits to the capital markets, and we believe that any proposed auditing standard should take the development of professional standards related to specialists into consideration.

---

<sup>6</sup> See AU 336.12.

<sup>7</sup> See AU 342.10a.

<sup>8</sup> See AU 342.10c.

<sup>9</sup> See AU 342.10b.



If, however, the staff pursues a requirement that the auditor test the information provided by specialists engaged by the company as if it were produced by the company, we believe that it will be critical to perform a robust cost/benefit analysis involving all key stakeholders, including third-party specialists.

### **Third-party pricing services**

We agree with the distinction made in the Staff Consultation Paper that there are different types of third-party pricing sources, some of whom provide information “that is developed for, and widely available to, the public” and some of whom provide information “that is generated specifically for the auditor,” and we applaud the staff for their consideration of “an approach in the potential new standard that could potentially recognize some of these differences.”<sup>10</sup> We believe that, in addition to this distinction, it is important to further distinguish between third-party data providers, who provide market information, and third-party pricing services, who provide an independent estimate that is not unique to any individual company and is based on market information. Based on this distinction, we agree that the audit evidence obtained from different third-party sources (specialists, third-party pricing services, and third-party data providers) should be subject to different audit requirements. Regardless of the third-party source, we believe the principles in AS 15 to evaluate relevance and reliability are appropriate. Below, we discuss our observations on third-party pricing services.

#### *The auditor’s use of third-party pricing services*

We believe that the use of third-party pricing services can be a relevant and reliable source of pricing for certain financial instruments and is consistent with GAAP.<sup>11</sup> We also believe that information obtained from third-party pricing services at times can provide sufficient appropriate audit evidence related to management’s valuation estimates when appropriate procedures are performed to assess the capabilities of the third-party pricing service. Third-party pricing services provide independent pricing information free of influence from any one company, and we believe that the absence of this influence enhances the relevance and reliability of the information. Additionally, given that the estimates provided by a third-party pricing service are used every day by market participants, and are subject to price challenges by these same market participants, there appears to be a monitoring inherent in the process.

Our view is that a standard developed to address the requirements in evaluating information obtained from third-party pricing services would need to allow for flexibility in determining the nature and extent of procedures necessary to assess the relevance and reliability of evidence provided by third-party pricing services, rather than suggesting a ‘one-size-fits all’ approach. It is unclear from the Staff Consultation Paper, but it appears that the direction the staff is considering would in essence require the auditor, among other matters, to conduct a ‘deep dive’ analysis of the price received from the third-party pricing service regardless of the risk of material misstatement.

If this is the case, we are concerned with the implication in the Staff Consultation Paper, as described on page 44, that the same level of testing is necessary to evaluate the relevance and reliability of pricing of each security provided by a third-party pricing service. We believe an effective risk assessment, including a stratification to identify the different types of securities within an investment portfolio that represent differing degrees of risk of material misstatement, can be effective in developing an appropriate audit approach. Identifying the types of securities held within an investment portfolio helps to identify those securities that inherently present a higher risk of valuation misstatement and warrant an auditor obtaining

<sup>10</sup> See *Staff Consultation Paper*, page 43.

<sup>11</sup> See ASC 820.10.35.54k.



additional audit evidence. Conversely, it also helps identify those securities that have inherently less risk of valuation misstatement. For example, a security appropriately classified as “Level 3” under the GAAP hierarchy will present a different valuation risk than a security appropriately classified as “Level 1;” therefore, the nature and extent of the audit procedures required to obtain sufficient appropriate audit evidence to support these different examples of a fair value estimate should differ.

The Staff Consultation Paper discusses a potential requirement that, “[w]hen there are no transactions either for the asset or liability or comparable assets or liabilities, [the auditor should determine] how the information was developed including whether the inputs developed represent the assumptions that market participants would use when pricing the asset or liability, if applicable.”<sup>12</sup> Such an approach, and the precision implied, appears to be inconsistent with the staff’s stated goal of aligning a new standard with the Board’s risk assessment standards. We also believe that such a requirement would be operationally impracticable, from the point of view of both the auditor and the third-party pricing service and, by extension, to companies and financial statement users. We agree that a lack of transactions for the asset or liability or comparable assets or liabilities may increase the risk of material misstatement and additional procedures are most likely warranted but as discussed further below, other alternative procedures may be sufficient and appropriate.

#### *Limitations*

We believe that there are current constraints associated with the information provided by third-party pricing services that would affect the auditor’s ability to perform the proposed audit procedures. Generally, third-party pricing services have not developed an automated process to be in a position to provide the information suggested in the Staff Consultation Paper on a security-by-security basis in a consistent manner. Much of the necessary information is either not currently available or would need to be manually extracted from third-party pricing services’ tools. Based on our conversations with various third-party pricing services, we also believe that some third-party pricing services are prohibited from revealing certain of the data used in developing their price due to legal or contractual confidentiality reasons agreed to with certain of their sources of market information. The information needed to determine whether fair values are based on transactions of comparable assets or liabilities is generally available at an aggregated level, via a third-party pricing service’s methodology documentation for the product, and at a security level via a ‘deep dive,’ for which third-party pricing services may limit the number that their customers, including companies and auditors, may request.

The Staff Consultation Paper also indicates incremental procedures related to relevance to be performed on indicative broker quotes. Even with the constraints listed above, third-party pricing services generally provide greater transparency related to the relevance considerations outlined in points a - c on pages 45 and 46 of the Staff Consultation Paper than do brokers. In our experience, brokers typically will not disclose this level of information in their interactions with auditors. Therefore, additional challenges exist in performing these procedures on indicative broker quotes.

As discussed below, we believe a better approach is for the auditor to perform risk assessment procedures to determine when information from third-party pricing services would be considered relevant and reliable when combined with appropriately assessing the capabilities of the third-party pricing service, compared to when information from a third-party pricing service alone is not sufficient appropriate evidence and additional procedures should be performed.

---

<sup>12</sup> See *Staff Consultation Paper*, page 46.





### *Impact of effective risk assessment on the audit approach*

We agree that it is important for an auditor to consider the type of model used to develop a fair value measurement obtained from a third-party pricing service. In alignment with the current requirements of AU 332, among other matters, the auditor should obtain evidence by performing procedures such as (i) determining whether the valuation model is appropriate and whether the assumptions used are reasonable and appropriately supported, or (ii) developing an independent expectation to corroborate the reasonableness of the value calculated by the entity.<sup>13</sup> However, we note that there is a spectrum of models that require a varying level of judgment. We believe that the extent of substantive audit procedures should be commensurate with the level of judgment and complexity involved in the model used. For example, certain valuation models (including certain matrix pricing) include inputs which are based on quoted prices, or prices implied by yields, for similar securities. These models are inherently less judgmental and less complex; therefore, the nature and extent of testing should be different to address the valuation assertion.

We recommend an approach that is predicated on the identification and assessment of the risk characteristics of the securities. For securities where prices are based on unadjusted, quoted prices for identical assets or liabilities in an active market, and securities where prices are the result of a less complex or judgmental model, a ‘deep dive’ into an assessment of the relevance and reliability of the third-party pricing service price at the security level should not be necessary. Assessing the capabilities of the third-party pricing service, along with reviewing pricing data obtained and considering this information in relation to the financial instrument, would most likely provide sufficient audit evidence to conclude that certain security values are not materially misstated. Generally, we believe that prices received from a third-party pricing service whose prices are the result of a less complex/judgmental model represent sufficient appropriate audit evidence to support the valuation assertion in connection with appropriately assessing the capabilities of the third-party pricing service because the auditor can assess the reasonableness of the price.

Securities whose prices are the result of more complex or judgmental models, and securities where the value of the securities are based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement, require additional procedures to assess the relevance and reliability of the prices received from third-party pricing services. For example, auditors may decide to develop an independent estimate in order to test the security’s valuation or perform a ‘deep dive’ related to the price obtained from the third-party pricing service.

We believe an appropriate risk assessment can provide the basis for identifying securities that require additional audit evidence and those where third-party pricing itself may be considered sufficient appropriate audit evidence. The risk assessment process could include, for example, consideration of the ASC 820 fair value hierarchy classification by the company and understanding the specific asset types, including their relevant characteristics, held within a company’s portfolio.

As discussed in the previous section, if the staff pursues a requirement to perform a security-level ‘deep dive’ analysis regardless of the assessment of risk of material misstatement, the staff should seek input from other stakeholders, including third-party pricing services, as to their ability to provide the level of information that would be required. We believe it would also be valuable that the staff recognize that existing SSAE 16 reports for third-party pricing services do not cover the development of the fair value estimate for most financial instruments and so, in our opinion, would be insufficient to meet the

---

<sup>13</sup> See AU 332.40.



requirements implied in the Staff Consultation Paper. We believe that input from third-party pricing services is crucial for the staff to have a full and proper view of the practicability of the potential requirements.

## **Other matters**

### *Linkage to the risk assessment standards*

We agree that it is important to consider the interaction of the PCAOB's risk assessment standards with a potential new standard. We also agree that the staff should propose amendments directly to the risk assessment standards and not integrate the requirements of the risk assessment standards into a new standard. We also support the amendments to Auditing Standard Nos. 12 and 13 as proposed in the Staff Consultation Paper as the only areas of the risk assessment standards to amend.

### *Requirement to assess whether methods used are accepted in the industry*

The Staff Consultation Paper asks whether a potential requirement to "evaluate whether methods are accepted within the company's industry" would be appropriate for both accounting estimates and fair value measurements.<sup>14</sup> While we acknowledge that a similar discussion is included in AU 328<sup>15</sup>, we believe that this should not be a presumptive requirement in a new standard as industry considerations may not be relevant for all estimates. Given this, we propose the following suggestion:

*...The auditor also should evaluate whether the methods are:*

- a. Accepted within the company's industry, **if applicable**; and...

### *Requirement to evaluate assumptions not used by management*

The Staff Consultation Paper asks whether the staff should "consider a requirement for the auditor to identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate."<sup>16</sup> We believe that the auditor has a responsibility to determine whether the assumptions that are used to develop the estimate are reasonable and supportable, and to evaluate any contradictory evidence of which they become aware, but not to disprove each potential existing assumption. As a result, it is unclear how the auditor might demonstrate the completeness over their consideration of potential assumptions. In addition, such a requirement seems to go beyond the requirement in ASC 820 in which exhaustive efforts to obtain information about market participant assumptions do not need to be undertaken.<sup>17</sup> We note that AU-C 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* ("AU-C 540") contains a requirement to evaluate how management has considered alternative assumptions or outcomes and why it has rejected them, or how management has otherwise addressed estimation uncertainty in making the accounting estimate.<sup>18</sup> Instead of the proposed requirement, we would be supportive of a requirement similar to AU-C 540.15(a).

<sup>14</sup> See *Staff Consultation Paper*, pages 33 and 34.

<sup>15</sup> AU 328.18c.

<sup>16</sup> See *Staff Consultation Paper*, pages 35-36.

<sup>17</sup> See ASC 820-10-35-54A.

<sup>18</sup> See AU-C 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures*, paragraph 15(a).





*Providing prescriptive guidance on which method to use*

We do not support the development of prescriptive guidance to determine which approach to testing an estimate should be taken in specific circumstances. Auditors should have the flexibility to determine an effective approach which could include evaluating the occurrence of relevant subsequent events that may be difficult to predict. Prescriptive guidance on when to use one method may also limit the auditor's consideration of combining different approaches and may have the unintended consequence of reducing audit quality.

*AU 332*

The Staff Consultation Paper asks if certain elements of AU 332 should be retained.<sup>19</sup> While certain elements of AU 332 overlap with AU 328 and AU 342, there are other elements that are not currently discussed in AU 328 and AU 342 and which are not described in the Staff Consultation Paper.<sup>20</sup> As such, we believe that a single auditing standard contemplated by the staff should only consider and then supersede AU 332.26-.48, which discuss valuation.

\* \* \* \* \*

We appreciate the opportunity to express our views and would be pleased to discuss our comments or answer any questions that the PCAOB staff or the Board may have. Please contact Marc Panucci (973-236-4885) or Derrick Stiebler (973-236-4904) regarding our submission.

Sincerely,

*PricewaterhouseCoopers LLP*

---

<sup>19</sup> See *Staff Consultation Paper*, page 18.

<sup>20</sup> See, for example, AU 332.21 which discusses existence or occurrence.

3 November 2014

Office of the Secretary  
U.S. PCAOB  
1666 K Street, N.W.  
Washington, D.C.  
US-20006-2803

**Comment Letter – PCAOB Staff Consultation Paper: Auditing Accounting Estimates and Fair Value Measurements**

Dear Sir/Madam,

SwissHoldings, the Swiss Federation of Industrial and Service Groups in Switzerland, represents 60 Swiss groups, including most of the country's major industrial and commercial enterprises. As certain of our members are registered with the SEC as Foreign Private Issuers and are audited in accordance with PCAOB standards, we are pleased to take the opportunity to comment on the above mentioned staff consultation paper (the paper). Our response below has been prepared in conjunction with our affected member companies.

**GENERAL COMMENTS**

We agree with the paper's observation that accounting estimates and fair value measurements involve uncertainty and management judgment. We also agree that the use of fair value in measuring financial statement items has increased recently, and continues to increase as economic activity and the underlying transactions, assets and liabilities represented in financial statements become more complex. While we agree that accepted practice should include a degree of consistency in how estimates and measurements are prepared and audited, detailed rules cannot replace the essential role of judgment. We also believe that enhancing audit standards may be a less effective remedy for the audit deficiencies referred to in the paper than enhancing the client acceptance, technical competence, audit team supervision and engagement quality review processes of audit firms.

In the discussion in the paper about the use of independent third party experts, it is suggested that the auditors treat the output of the experts as if it were prepared by the company. We agree that the work of an independent expert needs to be audited, but to ignore the independence of the experts would negate the whole purpose of using them, which is to get additional audit benefit from their expertise and independence beyond what the preparer/client would be able to provide themselves.

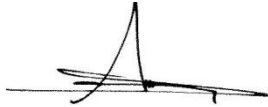
---

We thank you for the opportunity to submit our comments on your proposal.

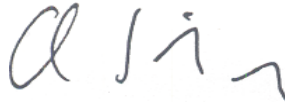
Yours sincerely

**SwissHoldings**

Federation of Industrial and Service Groups in Switzerland



Michel Demaré  
Chair



Christian Stiefel  
Director

cc SH Board

---

## APPENDIX

### RESPONSES TO SPECIFIC QUESTIONS IN THE RELEASE

We respond below to a representative sample of those questions for which we believe the experience of our members is most relevant.

#### Overview of the Approach Being Considered by the Staff

##### Question 4

*Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included within a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?*

In our view, there are limitations to addressing both fair value measurements and other estimates in a single standard. IFRS and U.S. GAAP both contain specific, detailed (and converged) guidance on fair value measurement. Preparers and auditors can refer to this guidance. Any additional guidance on auditing fair value measurements needs to follow the applicable accounting standard closely. Many of the requirements for measuring fair value, such as the need to adopt the viewpoint of a typical market participant, do not apply to other accounting estimates.

#### Identifying and Assessing Risks of Material Misstatement

##### Question 10

*Should the requirements for identifying and assessing risks of material misstatement with respect to accounting estimates and fair value measurements – including risk assessment procedures – be included in Auditing Standard No. 12 or be separately set forth in a potential new standard on auditing accounting estimates?*

##### Question 12

*A potential amendment to Auditing Standard No. 12 could state that, as part of obtaining an understanding of the company's information system relevant to financial reporting, the auditor should obtain an understanding of how a company develops its accounting estimates, specifically: The processes used to develop accounting estimates, including:*

- a) The methods, which may include models;*
- b) The data and assumptions; and*
- c) The extent to which the company uses a third party or information provided by a third party in developing the accounting estimates.*

*Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other matters relevant to understanding the process used to develop accounting estimates or fair value measurements that could be included in Auditing Standard No. 12?*

We agree that the amendment described above would be appropriate.

---

**Question 13**

*In circumstances where the company uses information obtained from a third party, are there matters – such as information systems at third parties, controls that management has over the work of third parties, and controls at third parties – not currently addressed in AU sec. 324, Service Organizations, or other standards that the staff should consider?*

In our opinion, the processes set out in AU sec. 324 are sufficient for an auditor to form an opinion whether there is reasonable assurance that the outputs of a company's third party service provider are free from material error.

**Identifying Significant Accounts and Disclosures and Significant Risks****Question 14**

*The staff is considering recommending to the Board a potential amendment to paragraph 71 of Auditing Standard No. 12 that would require the auditor to take into account particular factors that could be relevant to assessing the degree of complexity or judgment in the recognition or measurement of an accounting estimate. For example:*

*“In evaluating the degree of complexity or judgment in the recognition or measurement of an accounting estimate, especially those measurements involving a wide range of measurement uncertainty, the auditor should take into account:*

- a) The extent of unobservable inputs used;*
- b) The type of models or calculations used, if applicable;*
- c) The degree of subjectivity associated with a future occurrence or outcome of events underlying the assumptions used such as estimates of future cash flows or prepayment assumptions; and*
- d) The extent of market liquidity or activity for the asset or liability, if relevant to the measurement objective.”*

*Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other factors that would be relevant in the auditor's evaluation of the degree of complexity or judgment in the recognition or measurement of an accounting estimate or fair value measurement (e.g., the use of a third party for the determination of a price)?*

We agree that the potential amendment is clear and appropriate.

**Question 16**

*Are there certain types of accounting estimates or fair value measurements that should be presumed to be significant risks?*

In our view, inherent risks arise mainly from how uncertain the business environment relevant to the item being estimated or measured is, control risks arise mainly from the quality of the company's internal controls over financial reporting, and measurement risks arise from the quality and quantity of inputs available to perform the estimate or measurement. The type of accounting estimate or fair value measurement is not the most important factor in determining risk and may not always be significant.

## **Testing Conformity of Financial Statement Disclosures with the Applicable Financial Reporting Framework**

### **Question 18**

*The staff is contemplating whether an amendment to Auditing Standard No. 13 would be useful to underscore the importance of considering the related accounting requirements when auditing significant accounts and disclosures. For example, paragraph 36 of Auditing Standard No. 13 could be amended by adding the following statement:*

*“Performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework”.*

*Is the potential amendment to Auditing Standard No. 13 described above helpful in emphasizing the auditor's consideration of the applicable accounting framework when auditing significant accounts and disclosures?*

### **Question 19**

*Should a potential new standard include specific audit procedures related to auditing disclosures of accounting estimates (e.g., disclosures on levels within the fair value hierarchy)?*

We believe that how auditors should discharge their responsibility with regard to auditing financial statement disclosures is already clear, and further amendment to Auditing Standards would not be the best way to remedy any shortcomings the staff are aware of in this area.

## **Evaluating the Company's Method Used to Develop an Accounting Estimate**

### **Question 26**

*A potential new standard could include the following requirements relating to the auditor's evaluation of the appropriateness of the company's methods used to develop an accounting estimate:*

*“The auditor should evaluate whether the company's methods used to develop the accounting estimates are appropriate. In evaluating the appropriateness of the methods, the auditor should evaluate whether the methods are in conformity with the applicable financial reporting framework. The auditor also should evaluate whether the methods are:*

- a) Accepted within the company's industry; and*
- b) Applied consistently, including whether consistency is appropriate considering changes in the environment or circumstances affecting the company.*

*If the company has changed the method for determining the accounting estimate, the auditor should determine the reasons for and evaluate the appropriateness of such changes. In circumstances where the company has determined that different methods result in significantly different estimates, the auditor should determine the reasons for the method selected by the company and evaluate the appropriateness of the selection.”*

*Are the potential requirements described above for evaluating whether the company's method used to develop accounting estimates appropriate for both accounting estimates and fair value measurements?*

**Question 27**

*In circumstances where the financial reporting framework does not specify the use of a particular valuation method, is the consideration of methods accepted by the company's industry relevant? Are there other criteria that auditors could use to evaluate the appropriateness of the company's method used to develop accounting estimates?*

It is important that the auditing framework allow and support advances in measurement techniques. There is a danger that such advances would be blocked from being introduced by a formal requirement that only techniques which are already generally accepted in the company's industry are allowed to be applied. Otherwise, we agree that the above requirements are appropriate for both accounting estimates and fair value measurements.

**Evaluating the Reasonableness of Significant Assumptions Identified****Question 30**

*The following requirement could be included in a potential new standard relating to the auditor's evaluation of the reasonableness of the identified significant assumptions:*

*"When evaluating significant assumptions, the auditor should evaluate the consistency of each significant assumption with the following, if applicable:*

- a) Relevant industry, regulatory, and other external factors, including economic conditions;*
- b) The company's objectives, strategies, and related business risks;*
- c) Existing market information;*
- d) Historical or recent experience, taking into account changes in conditions and events affecting the company; and*
- e) Other interdependent assumptions used by the company."*

*Are the suggested factors described above appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluating the reasonableness of significant assumptions relevant to accounting estimates?*

We agree that the factors described above are appropriate for evaluating the reasonableness of significant assumptions. We are not aware of other factors the auditor should consider.

**Management's Use of a Specialist****Question 31**

*The staff is also exploring whether to include in a potential new standard audit procedures to address information developed by a company's specialist related to accounting estimates. If a company uses a specialist to develop an accounting estimate, a potential new standard could direct the auditor to test that information as if it were produced by the company. In this case, the auditor would be required, as applicable, to evaluate the appropriateness of the methods, test the data used, and evaluate the reasonableness of significant assumptions, with respect to the information provided by the specialist. For example, the potential new standard could include the following requirement:*

*"When the company uses a specialist employed or engaged by the company to develop an accounting estimate, the auditor should test the information provided by the specialist as if it were produced by the company."*

In our view, the reasons why companies engage specialists to report on matters relevant to accounting estimates, and why auditors are generally happy to work with specialists in that context, are the following:

- the specialists' experience and expertise in their particular field reduces the risk of the company making an error on account of its own employees lacking the requisite skills in that specialist field; and
- information an auditor obtains from an independent third party has greater value as audit evidence than similar information provided by the company directly. Therefore, the involvement of a specialist allows the auditor to obtain sufficient audit evidence to support the company's estimates more easily than if no specialist is involved.

We acknowledge that the auditor cannot simply accept the work of a specialist without making further enquiries, and must obtain evidence that the specialist is sufficiently qualified and that adequate controls exist over information sent to the specialist such that it can be reasonably assured the specialist will apply his/her expertise to the correct data set and interpret that data set in a way consistent with the company's intentions and practices.

Nevertheless, for the reasons we have set out above, we are of the view that the requirement described above would lead to the auditor performing unnecessary audit procedures. A formal requirement, as worded above, would almost certainly involve both the auditor and the company's specialist in additional time and effort compared to current practice, with all the additional costs that would entail. In fact, the requirement would raise the possibility that the auditor might engage similar specialists to re-perform at least some aspects of the work performed by the company's specialists, duplicating the costs involved. These incremental costs would have to be borne by the company, which means ultimately by the company's investors.

Also, we would point out that not allowing the external auditors to rely on reputable experts used by their clients and requiring the auditors to request the views of another independent expert will lengthen the process of preparing and auditing the financial statements and will likely delay the publication of the financial statements. As any specialist can only give an opinion, we suggest therefore that only if the auditor has concerns about the quality or independence of the expert should another expert be brought in.

### **Use of Third Parties**

#### **Question 38**

*The staff is considering including a requirement that would apply when the auditor and the company use the same third-party source to arrive at an accounting estimate. For example: "If the third-party source used by the auditor is the same as the third-party source used by the company, the auditor should evaluate the audit evidence obtained as if it were produced by the company, which includes testing data and evaluating reasonableness of significant assumptions".*

*Would the potential requirements described above address procedures performed by audit firms that use a centralized testing approach? Would these requirements create issues in practice for smaller firms?*

#### **Question 39**

*Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?*

We agree that the auditor should always consider whether information obtained is appropriate audit evidence before using it as such, regardless of the source of that information. However, as in our response to Question 31 above, we are of the view that to treat third party information as if



it were produced by the company would ignore the benefits of the third party's independence and expertise and lead to unnecessary audit procedures being performed.

We do not see why it is necessary to require the auditor to use a third party that is different from the one used by company management. Indeed this may not be possible because there may be only one independent third party source of certain information the auditor needs to obtain in order to audit a company's estimate and that source would necessarily also be the company's source of information to develop the estimate. We understand that accepted audit practice in these and similar situations often already includes the auditor meeting with the third party separately from meeting with the company in order to discuss the third party's estimate and how it is prepared, so that the auditor can conclude whether it can rely on the third party's information. In our view, this procedure should be sufficient.

## **Evaluating Audit Evidence from Third-Party Sources**

### **Question 40**

*The staff is exploring whether a new standard should set forth specific requirements for evaluating information from third-party pricing sources as part of evaluating the relevance and reliability of the evidence pursuant to Auditing Standard No. 15. Under that approach, the auditor would first evaluate the reliability of the evidence provided by the third-party pricing source, taking into account certain factors. For example:*

- a) "The experience and expertise of the third party relative to the type of asset or liability being valued; and*
- b) The methods used by the third party in determining fair value for the specific company's assets or liabilities being tested and whether the methodology used is in conformity with the applicable financial reporting framework".*

*Under this approach, the auditor would then evaluate the relevance of the evidence obtained from the third-party source. For example:*

*"The auditor should evaluate whether the evidence provided by the third-party source is relevant to the fair value measurement, which includes determining the following:*

- a) Whether fair values are based on trades of the same instrument or active*
- b) market quotations;*
- c) When the fair values are based on transactions of comparable assets or liabilities, how those transactions are identified and considered comparable;*
- d) When there are no transactions either for the asset or liability or comparable assets or liabilities, how the information was developed including whether the inputs developed represent the assumptions that market participants would use when pricing the asset or liability, if applicable; or*
- e) When the fair value measurement is based on a broker quote, whether the broker quote:
 
  - i. "Is from a market maker who transacts in the same type of financial instrument; and*
  - ii. Is binding or nonbinding, with more weight placed on quotes based on binding offers"**

*Would the factors noted above help the auditor in evaluating the reliability and relevance of evidence obtained from third-party pricing sources? Are there other factors that are applicable in determining the reliability or relevance of evidence obtained from third-party pricing sources?*

**Question 41**

*Are there other approaches to testing evidence obtained from third-party pricing sources that the staff should consider?*

When a company uses a third party pricing service as a source of fair value information in financial statements, we agree that an auditor needs to obtain sufficient evidence about how the pricing service develops its estimates in order to conclude whether the company has presented the information correctly (e.g. what fair value hierarchy level the pricing estimate should be assigned to in the associated disclosure table). We agree that the factors described above are relevant.

---



November 3, 2014

The Honorable James Doty  
Chairman  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006

**Re: Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements***

Dear Chairman Doty:

The Financial Instruments Reporting and Convergence Alliance (“FIRCA”) is a coalition of business, financial, insurance and real estate trade organizations representing all sectors of the economy and areas of the financial services arena. FIRCA recognizes that accurate and transparent financial reporting is a cornerstone of our capital markets in the United States and globally. FIRCA was formed in the wake of the 2008-2009 fair value accounting crisis and we welcome the opportunity to comment on the Public Company Accounting Oversight Board’s (“PCAOB”) Staff Consultation Paper, ***Auditing Accounting Estimates and Fair Value Measurements***, (“Fair Value Paper”).

FIRCA has concerns that the PCAOB has inferred, but not necessarily demonstrated, a problem with fair value estimates. Further, for stakeholders to benefit from the findings in the paper, it must be understood how any such audit or disclosure-based fair value practices do not take into account estimates in illiquid markets, such as for many corporate bonds. In addition to these points, FIRCA believes that the intent to combine the three different current audit standards for estimates, fair value measurements, hedging and derivatives into one standard is fraught with adverse unintended consequences and will exacerbate financial reporting complexity. FIRCA is also concerned that suggested revisions to auditing standards in the Fair Value Paper appear to be prescriptive rather than principles-based and

The Honorable James Doty  
November 3, 2014  
Page 2

potentially more focused on facilitating the inspection process rather than improving audit effectiveness.

The absence of a clear identification of the nature of inspection deficiencies involving the auditing of estimates, fair values, derivatives and hedging distorts the utility of the Fair Value Paper. Therefore it is not possible for FIRCA, or other stakeholders, to provide informed commentary on the Fair Value Paper.

Accordingly, FIRCA respectfully requests that the PCAOB provide stakeholders with fact based information on the nature of the problem that the PCAOB is trying to solve. Additionally, the Signatories believe that it is useful for stakeholders to understand why revising auditing standards for estimates, fair values, hedging and derivatives represents the appropriate solution to that problem. This information should include the problems uncovered during the inspections process, the scope of these deficiencies, including their materiality and significance for the financial statements and overall audit. If these problems have triggered restatements, stakeholders will need to know the rationale for why revising auditing standards for estimates, fair value measurements, hedging and derivatives will address the problems and why these standards need to be combined. Additionally, in regards to auditing hedging and derivative activities, FIRCA strongly suggests that the PCAOB work with other regulatory bodies to determine what, if any, changes are needed in auditing standards. FIRCA also renews its recommendation that the PCAOB create a Business Advisory Group to improve the information flows needed for an efficient standard setting process.

Our concerns are discussed in greater detail below.

### **Discussion**

Many of the signatories to this letter, as well as many others, were involved in collective efforts to address issues related to fair value accounting that had erupted during the 2008-2009 financial crisis. Our concerns related to the inability to measure assets in illiquid markets and to advocate for reforms, in both accounting and auditing policies, to allow for measurements and modeling to be used when normal market conditions were disrupted. These efforts included numerous meetings and correspondence with the Financial Accounting Standards Board (“FASB”), the

The Honorable James Doty  
 November 3, 2014  
 Page 3

Securities and Exchange Commission (“SEC”), and Congress. On March 4, 2009, the fair value accounting coalition sent a letter<sup>1</sup> to the PCAOB requesting it “to issue guidance and standards as to how it will impact the audits of fair value accounting in light of recent actions...” The coalition also met with the PCAOB on March 29, 2009 to advocate for action to provide for a coordinated means of guidance to ensure that both the *accounting* and *auditing* of fair value and impairments be addressed simultaneously.

These efforts culminated in the April 9, 2009 release of staff positions by the FASB (“FASB fair value reforms”)<sup>2</sup> to improve guidance and disclosure on fair value measurements and impairments. However, the PCAOB did not take any action at that time to promulgate new guidance for auditors.<sup>3</sup> Now, more than five years after the crisis, it is confusing to the business community why the PCAOB has taken up this issue after it seemed to have been settled and the crisis abated.

## 1. April 2009 FASB Fair Value Changes

During the 2008-2009 financial crisis, markets shut down making it difficult, if not impossible, for businesses to obtain observable data to value assets. Similarly, bids of a fire sale nature, intended to drive down asset prices in illiquid markets, made some observable inputs not only worthless, but harmful to the financial well-being of a business. The FASB fair value reforms (as well as other SEC and FASB actions taken between October, 2008 and April, 2009) were designed to facilitate the use of Level III modeling for valuations in illiquid markets and how losses could be

---

<sup>1</sup> The March 4, 2009 coalition letter to the PCAOB which is attached as an appendix to this letter.

<sup>2</sup> The FASB staff positions pertained to: FSP FAS 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly*, providing guidelines to make fair value measurements more consistent with the principles presented in FASB Statement No. 157, Fair Value Measurements; FSP FAS 107-1 and APB 28-1, *Interim Disclosures about Fair Value of Financial Instruments*, promoting consistency in financial reporting by increasing the frequency of fair value disclosures; and FSP FAS 115-2 and FAS 124-2, *Recognition and Presentation of Other-Than-Temporary Impairments*, providing guidance for greater clarity and consistency in accounting for and presenting impairment losses on securities

<sup>3</sup> FIRCA appreciates that the PCAOB issued Staff Audit Practice Alerts 2, 3, and 4 on *Matters Related to Auditing Fair Value Measurements of Financial Instruments and the Use of Specialists* (December 10, 2007), *Audit Considerations in the Current Economic Environment* (December 5, 2008), and *Auditor Considerations Regarding Fair Value Measurements, Disclosures, and Other-Than-Temporary Impairments* (April 21, 2009), respectively. However, the purpose of staff audit practice alerts is to remind auditors of their responsibilities under existing PCAOB auditing standards, not establish new auditing standards.

The Honorable James Doty  
November 3, 2014  
Page 4

recognized. These actions were meant to provide investors with appropriate decision useful information during a time of great stress on the financial system and economy.

We had hoped that the PCAOB would address potential audit issues in a more robust way with the promulgation of the April, 2009 fair value reforms. We note that the PCAOB's Staff Audit Practice Alert issued in April 2009, emphasized that the PCAOB had a project on its standard-setting agenda to address the auditing standards related to auditing accounting estimates and auditing fair value measurements.<sup>4</sup> However, no new PCAOB audit guidance was promulgated as businesses applied the FASB fair value reforms. Even so, after businesses applied the FASB fair value reforms the procyclical asset write downs stopped, equity prices stabilized, and investor concerns over valuations abated.

Yet a reading of the 2010 PCAOB Report would seem to reflect conditions and requirements before the April 2009 FASB fair value reforms and, therefore, we need more current and even forward-looking evidence on audit firm practices and audit performance in these areas. Our concern is that the PCAOB's findings may in fact be contrary to the state of accounting that has existed post April, 2009. While such a debate may have been appropriate in the spring of 2009, it would appear that time has passed and many of the issues of that period have been resolved.

## **2. Concerns with the Fair Value Paper**

The Fair Value Paper states that its goal is to seek additional information to help the PCAOB staff assess the potential need for changes to standards for auditing accounting estimates and fair value measurements. Furthermore, the Fair Value Paper proclaims that the PCAOB has observed significant audit deficiencies with fair value measurements under its standards and other standards globally. In particular, the PCAOB references that International Forum of Independent Audit Regulators

---

<sup>4</sup> See PCAOB Staff Audit Practice Alert No. 4, *Auditor Considerations Regarding Fair Value Measurements, Disclosures, and Other-Than-Temporary Impairments* (April 21, 2009), which considered the effects the FASB's fair value reforms on audits and reviews under PCAOB auditing standards existing at that time.

The Honorable James Doty  
November 3, 2014  
Page 5

(“IFIAR”) surveys have found the highest number of deficiencies in audits of public companies to be in the area of fair value measurement.<sup>5</sup>

While the IFIAR surveys may make an interesting data point, they are neither dispositive nor representative of the audited financial statements required under the laws and regulations of the United States. Deficiencies in much smaller and illiquid capital markets, with differing legal requirements, should not be a basis of action for companies that are under the jurisdiction of the SEC and audits under the jurisdiction of the PCAOB. Practices and standards can vary widely and such data may distort perceptions and conclusions rather than inform them. This is particularly dangerous as it may create flawed standards.

The fair value paper also references the 2010 report released by the PCAOB, *Report on Observations of PCAOB Inspectors Related to Audit Risk Areas Affected by the Economic Crisis* (“2010 PCAOB Report”). The 2010 PCAOB Report states that through its oversight activities the PCAOB has observed significant audit deficiencies in fair value measurements. Another PCAOB report, released in 2013, is also cited in the fair value paper: *Report on 2007-2010 Inspections of Domestic Firms that Audit 100 or Fewer Public Companies* (“2013 PCAOB Report”) to illustrate the point of oversight activities pointing to significant deficiencies in fair value measurements.<sup>6</sup>

However, the Fair Value Paper and the 2010 and 2013 PCAOB Reports do not provide critical information that is necessary for stakeholders to evaluate if a problem exists today or provide informed commentary to the PCAOB.

The Fair Value Paper, 2010 PCAOB Report, and 2013 PCAOB Report state that the PCAOB has “observed significant audit deficiencies in this area.”<sup>7</sup> But, these materials provide no substantive analysis of the nature of the audit deficiencies or link to areas where auditing standards should be revised to improve practice. Indeed,

---

<sup>5</sup> The IFIAR surveys are listed in footnote 4 of the fair value paper: *Report on 2013 Survey of Inspection Findings*, IFIAR (April 10, 2014), [https://www.ifiar.org/IFIAR/media/Documents/IFIAMembersArea/MemberUpdates/IFIAR-Inspection-Survey-9-April-2014\\_1.pdf](https://www.ifiar.org/IFIAR/media/Documents/IFIAMembersArea/MemberUpdates/IFIAR-Inspection-Survey-9-April-2014_1.pdf) and *2012 Summary Report of Audit Inspection Findings*, IFIAR (December 18, 2012), [https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR-2012-Summary-Report-of-Members-Inspection-Findings-18-Dec-12-\(2\).pdf](https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR-2012-Summary-Report-of-Members-Inspection-Findings-18-Dec-12-(2).pdf).

<sup>6</sup> Both the 2010 PCAOB Report and the 2013 PCAOB Report are referenced in footnote 3 of the Fair Value Paper.

<sup>7</sup> Page 3, Fair Value Paper.

The Honorable James Doty  
November 3, 2014  
Page 6

discussions at the PCAOB's special meeting of the Standing Advisory Group ("SAG") on October 2, 2014, revealed that the firms' analyses of both "best practices" on effective audits and root causes of audit deficiencies suggest that it may be helpful to focus on areas other than auditing standards for estimates, fair values, and hedging and derivatives—such as quality controls.

Further, as discussed by FASB member Larry Smith and former FASB Chairman Robert Herz at the October 2, 2014, Standing Advisory Group ("SAG") meeting, the use of estimates in financial statements prepared under U.S. Generally Accepted Accounting Principles ("US-GAAP") is long-standing and pervasive. FIRCA is unaware of any current systematic evidence that audits have failed to assess the reasonableness of these estimates in the financial statements. Moreover, any proposed changes to auditing standards with such a pervasive effect on financial reporting may have consequences that would need to be fully understood and carefully analyzed to ensure that they withstand cost-benefit considerations.

In addition, the 2013 PCAOB Report seems to include a small subset of public companies that use fair value measurements, probably too small to be representative of the larger markets. This also calls into question the utility of the findings of the 2013 PCAOB Report as a basis to determine changes to standards.

To summarize, FIRCA believes that these concerns raise important and pertinent questions which need to be answered and information provided before stakeholders can provide informed commentary, or indeed for the PCAOB to move forward on this project at all. These questions would be:

1. How many restatements have occurred as a result of problems with fair value measurements?
2. What percentage of financial reports did these "fair value" restatements represent?
3. What is the nature of any auditing deficiencies related to estimates, fair value measurement, and hedging and derivatives and what do such deficiencies suggest in the way of needed changes in auditing standards, if any, to improve audit effectiveness?



The Honorable James Doty  
November 3, 2014  
Page 7

4. More specifically, what issues in terms of auditing fair value measurements would constitute an audit deficiency?
5. Have audit deficiencies been associated with inappropriate fair value measurements or estimates or compromising of investor interests in any way?
6. Are audit deficiencies in these areas associated somehow with deviations between recorded and realized values? If so, is that within the purview of the PCAOB?
7. How many public companies audits were subject to the inspections process?
8. What were the size of these companies and the industries they were involved with? Is the inspection pool of companies used in the 2010 PCAOB Report and 2013 PCAOB Report representative of the public company universe?
9. Has the PCAOB found similar issues with the valuation of corporate bonds and other fixed income products, which have been successfully audited for decades that operate in illiquid markets?

This is not an exhaustive list of questions but representative to show the type and level of detail needed for stakeholders to better understand the scope of issues and problems the PCAOB is concerned about and seeks to address. Without having this level of detail it isn't possible for commenters to give informed feedback needed for an intelligent rulemaking process.

FIRCA is also concerned about other aspects of the Fair Value Paper. For example, the Fair Value Paper indicates that the PCAOB is considering combining the existing auditing standards on estimates, fair values, and derivatives and hedging into one auditing standard. Given the heterogeneous nature of these activities and the accounting for them, such a move seems both counter-intuitive and counter-productive. In addition, FIRCA notes that the FASB's current direction is to change from an incurred loss model to an expected loss model for recording credit losses on

The Honorable James Doty  
November 3, 2014  
Page 8

financial instruments. This too will have its own unique accounting estimate issues. Combining this with an auditing standard for fair value, derivatives, and other accounting estimates would be a mistake. We also note that estimates are used in many other areas of accounting and auditing including, but not limited to, pensions, insurance, representations and warranties, inventory, goodwill, contingencies, valuation of mortgage servicing assets, etc. To create one auditing standard for this myriad of estimates used in preparation of financial statements would be impractical because the estimation techniques used for each are unique. All these factors also reinforce the need for principles-based auditing standards in each area—estimates, fair value measurement, and hedging and derivatives.

Further, FIRCA recommends that the PCAOB consider the issues with respect to auditing estimates, fair value measurements, and hedging and derivatives more holistically. A holistic perspective may lead to a different and more targeted approach to revising auditing standards to address any identified problems. For example, the Fair Value Paper is silent on how any proposed changes in auditing standards would impact the auditor's assessment of materiality. Perhaps new guidance would be usefully targeted on these assessments in the context of auditing estimates and fair value measurements. Auditing standards on the use of specialists represent another potential area for targeted revisions in auditing guidance. Moreover, while we recognize that the PCAOB expects auditors to understand pricing models used by management, more clarity is needed in certain areas as to the PCAOB's expectations (including under current auditing standards), such as on auditors' responsibilities with respect to internal controls of pricing services and modelers. Further examination may also be necessary to distinguish between data providers and specialists and what role they play in the audit.

### **3. Hedging and Derivative Activities**

Fair value measurements are important for businesses and their investors. Hedging and derivative operations are also an important means of businesses to mitigate risk, as well as lock in prices and secure raw materials needed to produce goods for the market and to provide stable pricing mechanisms for the benefit of consumers. Nevertheless, fair value valuation, hedging and derivatives are all very different functions and, again, it is unclear why the PCAOB wants to create one standard for all these along with accounting estimates. This seems to fail to appreciate

The Honorable James Doty  
November 3, 2014  
Page 9

the heterogeneous nature of the transactions and events in these areas and would seem to unnecessarily increase complexity in auditing and may have severe unintended consequences for businesses and their investors.

Further, hedging and derivatives activities have and continue to undergo significant regulatory changes since the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank Act”). With these activities not yet completed it would seem that revising auditing standards in those areas also may be premature.

We strongly recommend that the PCAOB work with other regulatory bodies including the SEC, Commodity Futures and Trading Commission, and the Federal Reserve Bank in order to harmonize policy work.

#### **4. Business Advisory Group**

Writing to the PCAOB on a different issue, on February 23, 2012, FIRCA proposed that a Business Advisory Group be established.<sup>8</sup> FIRCA believes that standard setters should have a wide range of input to ensure the proper consideration of business operations and potential unintended consequences in the development and implementation of accounting and auditing standards. We expressed concerns that a lack of broad based input may cause the PCAOB to expend resources that may be best allocated elsewhere, while developing auditing standards that do not adequately recognize and appreciate financial reporting structures to convey decision useful information to investors or businesses.

We believe that this is a case in point. It is unclear what the exact issues the PCAOB is concerned with or what issues it is trying to resolve. Indeed, had a Business Advisory Group been in existence in 2009-2010, the PCAOB would have had a ready forum to discuss concerns with fair value and to obtain information beneficial to assist the inspections and standard setting process. This could have provided the PCAOB with a better understanding of economic conditions and the implications for the development of auditing standards that contribute to reliable

---

<sup>8</sup> See February 23, 2012 letter from FIRCA to PCAOB Chairman Doty on the issue of mandatory audit firm rotation.

The Honorable James Doty  
November 3, 2014  
Page 10

decision useful information for investors. Indeed, it may have helped the PCAOB take action quicker and in a more informed manner.

We would request that the PCAOB explore this proposal.

## **5. Use of the Term Deficiency**

The Fair Value Paper makes repeated use of the term deficiency and we would hope that the PCAOB can provide some clarity around the definition and usage of this term, particularly since it appears the PCAOB is using it in a different manner over the past few months than it has over the past several years.

The 2010 PCAOB Report states:

[t]he discussion in this report of any audit deficiency reflects information reported to the Board by the inspection team and are not a result of an adversarial adjudicative process and do not constitute conclusive findings of fact or of violations for purposes of imposing legal liability.

Using these parameters, a deficiency is not a conclusive finding of fact or a violation. In fact, under this usage the term deficiency can reflect a difference in the exercise in judgment or analysis. However, starting in 2011, the PCAOB began to refer to Part I inspection deficiencies as audit failures, which is much different than the manner in which the term was used in the 2010 PCAOB Report. The manner and usage of the term audit failures with respect to Part I inspection deficiency findings is contrary to the accepted definition of an audit failure.

For instance, the definition of audit employed by the General Accounting Office in its 2003 surveys (“GAO Report”) and report to Congress on the mandatory audit firm rotation concept.

The GAO report defined the term as follows:

“audit failure” refers to audits for which audited financial statements filed with the SEC contained material misstatements whether due to errors or fraud, and reasonable third parties with knowledge of the

The Honorable James Doty  
November 3, 2014  
Page 11

relevant facts and circumstances would have concluded that the audit was not conducted in accordance with GAAS, and, therefore, the auditor failed to appropriately detect and/or deal with known material misstatements by (1) ensuring that appropriate adjustments, related disclosures, and other changes were made to the financial statements to prevent them from being materially misstated, (2) modifying the auditor's opinion on the financial statements if appropriate adjustments and other changes were not made, or (3) if warranted, resigning as the public company's auditor of record and reporting the reason for the resignation to the SEC.

Under the GAO a pre-condition for an audit failure is a material misstatement of the financial statements, presumably one that would trigger a restatement.

It would appear that the 2010 PCAOB report, 2013 PCAOB report, and the Fair Value Paper each use the term deficiency in different ways and it is unclear how commenters can evaluate facts and conclusions in these reports without a clear understanding as to how deficiency and audit failure are used, especially in the context of fair value measurements. A lack of precision in language in different reports again makes it difficult for stakeholders to provide informed commentary on the Fair Value Paper.

### **Conclusion**

Thank you again for the opportunity to comment on the Fair Value Paper. FIRCA would respectfully request that the public be given more information, as discussed in this letter, to better understand if there is a problem and what, if any, advisable course of action that would be appropriate. We would also request that auditing derivatives and hedging not be a part of this project and that the PCAOB work with the relevant regulatory bodies to determine what if any activities should take place in those areas. Finally, we would respectfully request the creation of a business advisory group to facilitate an efficient standard setting process.

We stand ready to work with you on these issues and are happy to discuss our concerns and thoughts in greater detail.

The Honorable James Doty  
November 3, 2014  
Page 12

Sincerely,

American Council of Life Insurers  
Barnert Global, Inc.  
CRE Finance Council  
Independent Community Bankers of America  
Mortgage Bankers Association  
National Association of Real Estate Investment Trusts  
The Real Estate Roundtable  
U.S. Chamber of Commerce

March 4, 2009

The Honorable Mark W. Olson  
Chairman  
Public Company Accounting Oversight Board  
1666 K Street, NW  
Washington, DC 20006-2803

Dear Chairman Olson:

Our business organizations and institutions represent entities from all sectors of the economy and areas of the financial services arena. We write to you today to urge the Public Company Accounting Oversight Board ("PCAOB") to issue guidance and standards as to how it will inspect the audits of fair value accounting in light of recent actions by the Securities and Exchange Commission ("SEC") and the Financial Accounting Standards Board ("FASB").

It is vital that the guidance and standards for auditors acknowledge and conform with the SEC report to Congress, issued in December 2008, as well as the guidance given by the SEC and FASB for illiquid and inactive markets. These actions by the PCAOB are necessary to avoid further unnecessary market dislocations.

The economy continues to suffer from the shocks emanating from the ongoing financial crisis. While it is clear that accountants and auditors did not cause the crisis, accounting standards may have had a procyclical effect. This effect has sparked a full-fledged debate on the fair value accounting portion of financial reporting and on whether financial statements are providing useful information.

On September 30, 2008, the Chief Accountant of the SEC and FASB staff issued a joint press release with a clarification of valuing assets in an illiquid market under SFAS 157. On October 10, 2008, FASB approved staff position SFAS 157-3, which provided additional guidance on fair value measurements. On October 14, 2009, the SEC wrote to FASB requesting a review of "other than temporary impairment ("OTTI") and that it is done expeditiously. The SEC, on December 30, 2008, released a study on fair value accounting pursuant to the Emergency Economic Stabilization Act of 2008. In this study the SEC recommended improvements to fair value accounting, including improvements in the application of fair value, further guidance to foster sound judgment, and simplification of the accounting for investments in financial assets. On January 12, 2009, FASB approved changes to

The Honorable Mark W. Olson  
March 4, 2009  
Page Two

EITF 99-20 to assist with the application of fair value accounting for certain types of assets. Finally, on February 18, 2009, FASB announced two projects in accordance with the recommendations of the SEC study, one for completion by the end of the second quarter, and the other to be completed by the end of 2009.

While many, including several of the signatories of this letter, have been critical of the narrow scope and lack of speed of these actions, the efforts listed above do represent positive incremental changes in the application of fair value accounting. However, these changes and any future beneficial changes to the use and application of accounting standards during the current economic crisis will go for naught if the auditing profession is not given appropriate guidance and standards for auditing the application of fair value, particularly when there is an inactive or illiquid market.

In part, because all components of the financial reporting community are not on the same page, drastic write-downs of certain illiquid assets that are not required to be written down under the literature continue and the credit markets remain frozen, further accelerating the downward spiral of the overall economy. Furthermore, the ramifications of this misapplication of existing standards will be felt for years to come, hampering efforts for economic recovery and the restoration of long-term growth.

Simply put, the left hand should not use a club to remove the instrument of reasonable accounting reforms from the right hand. For investors and businesses to have reasonable and reliable information on which to base sound decisions, auditing standards must keep up with accounting principles. It is important that guidance for auditors keep pace with the actions by the SEC and FASB.

Accordingly, we respectfully request that the PCAOB undertake the necessary actions to provide auditors with guidance on the use and review of fair value measurements. This guidance should be prepared in conjunction with the SEC and FASB and correlate with existing and likely future actions. Furthermore, this guidance should encourage auditors to take a balanced, as opposed to the most pessimistic, view of fair values. This guidance will ensure the transparency needed for investors and businesses and the use of sound judgment by preparers in these difficult times.



The Honorable Mark W. Olson  
March 4, 2009  
Page Three

Thank you for your consideration of this matter and we stand by to assist in any manner.

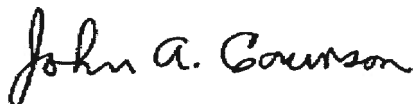
Sincerely,



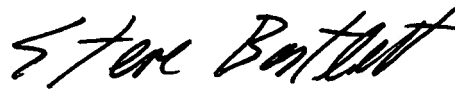
Richard Murray  
Chairman  
U.S. Chamber of Commerce  
Center for Capital Markets  
Competitiveness



Michael Monahan  
Director, Accounting Policy  
American Council of Life Insurers



John A. Courson  
Chief Operating Officer  
Mortgage Bankers Association



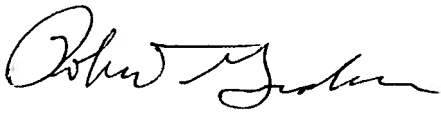
Steve Bartlett  
President and Chief Executive  
Officer  
Financial Services Roundtable



Robert Davis  
Executive Vice President  
American Bankers Association



William P. Kilmer  
Group Executive Vice President  
Advocacy Group  
National Association of Home  
Builders




Robert Gordon  
Senior Vice President  
Property Casualty Insurers  
Association of America



Jeffrey D. DeBoer  
President and Chief Executive  
Officer  
The Real Estate Roundtable



John von Seggern  
President and Chief Executive  
Officer  
Council of Federal Home Loan  
Banks



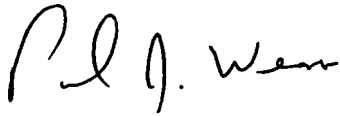
Rob Nichols  
President and Chief Operating  
Officer  
Financial Services Forum



Roger D. Lundstrom  
Executive Vice President and  
Chief Financial Officer  
Federal Home Loan Bank of  
Chicago



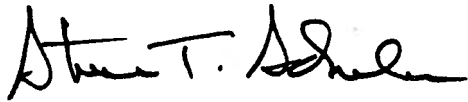
Steven J. Goldstein  
Chief Financial Officer  
Federal Home Loan Bank Atlanta



Paul J. Weaver  
Senior Vice President and Chief  
Accounting Officer  
Federal Home Loan Bank of  
Indianapolis



Richard M. Riccobono  
President and Chief Executive  
Officer  
Federal Home Loan Bank of Seattle



Steven T. Schuyler  
Executive Vice President and  
Chief Financial Officer  
Federal Home Loan Bank of Des  
Moines

cc: The Honorable Mary Schapiro, Chairman, U.S. Securities and Exchange  
Commission  
The Honorable Luis Aguilar, Commissioner, U.S. Securities and Exchange  
Commission  
The Honorable Kathleen Casey, Commissioner, U.S. Securities and Exchange  
Commission  
The Honorable Troy Paredes, Commissioner, U.S. Securities and Exchange  
Commission  
The Honorable Elise Walter, Commissioner, U.S. Securities and Exchange  
Commission  
Robert Herz, Chairman, Financial Accounting Standards Board  
Harold Monk, Jr., Chairman, Auditing Standards Board, American Institute of  
Certified Public Accountants



**PCAOB'S STAFF CONSULTATION PAPER: *AUDITING ACCOUNTING ESTIMATES AND FAIR VALUE MEASUREMENTS***

ICAEW welcomes the opportunity to comment on the PCAOB's Staff Consultation Paper: *Auditing Accounting Estimates and Fair Value Measurements* published by the PCAOB on 19 August 2014, a copy of which is available from this [link](#).

This ICAEW response of 3 November 2014 reflects consultation with ICAEW's Technical and Practical Auditing Committee and its PCAOB Panel.

ICAEW Professional Standards is the regulatory arm of ICAEW. Over the past 25 years, ICAEW has undertaken responsibilities as a regulator under statute in the areas of audit, insolvency, investment business and most recently legal services. In discharging our regulatory duties we are subject to oversight by the FRC's Conduct Committee, the Irish Auditing and Accounting Supervisory Authority, the Insolvency Service, the Financial Conduct Authority and the Legal Services Board.

The Audit and Assurance Faculty is recognised internationally as a leading authority and source of expertise on audit and assurance issues, the Faculty is responsible for audit and assurance submissions on behalf of ICAEW. The Faculty has around 7,500 members drawn from practising firms and organisations of all sizes in the private and public sectors.

ICAEW is a world-leading professional accountancy body. We operate under a Royal Charter, working in the public interest. ICAEW's regulation of its members, in particular its responsibilities in respect of auditors, is overseen by the UK Financial Reporting Council (FRC). We provide leadership and practical support to over 142,000 member chartered accountants in more than 160 countries, working with governments, regulators and industry in order to ensure that the highest standards are maintained.

ICAEW members operate across a wide range of areas in business, practice and the public sector. They provide financial expertise and guidance based on the highest professional, technical and ethical standards. They are trained to provide clarity and apply rigour, and so help create long-term sustainable economic value.

Copyright © ICAEW 2014  
All rights reserved.

This document may be reproduced without specific permission, in whole or part, free of charge and in any format or medium, subject to the conditions that:

- it is appropriately attributed, replicated accurately and is not used in a misleading context;
- the source of the extract or document is acknowledged and the title and ICAEW reference number are quoted.

Where third-party copyright material has been identified application for permission must be made to the copyright holder.

For more information, please contact [representations@icaew.com](mailto:representations@icaew.com)

[icaew.com](http://icaew.com)

## MAJOR POINTS

### Support for the CP

1. We support the objectives of this Consultation Paper (CP) which will stimulate debate on the challenges associated with the audit of estimates and fair values, and this paper will stimulate debate. The general thrust of the paper is to introduce more specific requirements to auditing standards. While this might make some auditors spend more time on these issues, we think that any new standard would stand more chance of dealing with the issues effectively and thereby improve investor confidence, if auditors were more confident in their ability to tackle the issues, and were actively encouraged to challenge management, more assertively than they do now.

### Acknowledging the wide range of issues affecting the audit of estimates and fair values

2. There are a number of widely acknowledged problems associated with the audit of estimates and fair values. Complex accounting issues and mathematical models used in the valuation of some financial instruments, a lack of available audit evidence and the lack of widely available expertise in these matters all affect auditors but, critically, they are largely beyond the control of auditors. That said auditors can and should be encouraged, through auditing standards, to challenge management, third parties and specialists, more than they do now, on a number of different levels.

### Recognising the need for competence

3. Taking estimates and fair values at face value and simply seeking corroborative evidence to support management's assertions, without challenging them, is not acceptable. But dealing with a lack of auditor confidence, and a lack of auditor ability or willingness to challenge, cannot be achieved simply by setting out in detail the questions auditors should ask and what they should do in any given set of circumstances. The people who develop and promote the complex estimates and fair values embedded in some financial instruments are highly qualified, highly paid and sophisticated. The models on which such instruments are based are often technically complex. An effective audit requires auditors with the experience, competence and time budgets to effectively challenge the bases of calculation. Auditors need to understand the answers to the questions they ask about the methodologies applied. At present, auditors do not always have the necessary combination of qualities and resources.

### The value of international harmonisation

4. We fully support the consolidation of the audit requirements for estimates and fair values into a single standard, consistent with ISAs, partly because of the similarities between estimates and fair values and partly because harmonisation is a worthy objective of benefit to US investors. The PCAOB should seek to build on the good (and often difficult) work performed by IAASB in this area in recent years. However, it is essential to recognise that despite the similarities, there are some specific aspects of the audit of fair values that are peculiar to that area, and are not relevant to the audit of the generality of estimates. IAASB's ability to bring these two areas together under one umbrella rested on the principles-based framework within which ISAs are developed. ISA 540 is also buttressed with non-mandatory guidance in IAPN 1000. Merging the two standards is not cost-free and includes permitting auditors to exercise judgement.

### Challenging the basis on which estimates are developed, including the associated controls

5. Many restatements involve estimates and fair values, and many internal control deficiencies reported by auditors are those that have already been reported to them. If auditors are to report on other internal control deficiencies, they need the competencies and resources to challenge management and third parties regarding controls over estimate development processes. Auditor resources include auditing standards that permit and encourage them to exercise judgement. The word 'challenge', in the context of challenging management, does not appear in the CP at all. Encouraging challenge, the exercise of scepticism and the application of existing standards in the spirit in which they were intended might reduce the need for radical

changes to standards. In any case, the opportunity should be taken to reinforce the importance of challenge and scepticism. The PCAOB might consider using material from Staff Audit Alert Practice Alert No. 10 on professional scepticism in this context. Preparers and auditors should be encouraged to recognise their responsibilities for the development and audit respectively of estimates and fair values, especially where third parties are involved. These *responsibilities* cannot be outsourced or delegated.

6. The CP proposes a number of specific requirements. We believe that many of these would be better expressed as guidance on how to apply the main principles, rather than as explicit requirements. In a number of cases, we suggest that it would be better either for guidance material to be developed, or for any requirement to be for auditors to consider whether the performance of a number of different procedures, from a list of possible procedures, is appropriate in the circumstances. The CP proposes a presumption that certain estimates are significant risks, and that procedures are introduced to address specific standards, such as the revenue recognition standard. We do not think that either of these proposed requirements is likely to improve audit quality. Nevertheless, if the PCAOB decides that some specific guidance is needed regarding the identification of significant risks, we believe that a *rebuttable* presumption that certain risks are significant would be better. The onus would be on auditors to show that the risk is not significant and would mean that in cases in which the risk was not in fact significant, work would not be performed for compliance purposes only. Such work is not cost-free<sup>1</sup>.

#### Imposing process requirements in the audit of fair values on the generality of estimates

7. Specific aspects of the audit of fair values that are peculiar to that area include the fact that the audit of fair values, particularly the audit of complex financial instruments, is often more process-driven than the audit of other estimates. At the same time, developing and auditing fair values often involve a high-level of judgement and the expertise required to exercise it. The overall impression given by this CP is that the process requirements surrounding fair values are being imposed on estimates generally. Furthermore, in our view, adding to current requirements in an attempt to make sure that there is less scope for abuse, and making all of it mandatory raises the bar, but without clear benefits. There is a risk that the outcome will be ever-lengthier checklists that will not serve to improve the quality of accounting estimates or the audit thereof, or enhance auditor scepticism.

#### Encouraging innovation

8. Innovation in audit is desired by regulators and firms alike, but it too comes at a price. Innovation requires judgement and judgement always involves the risk of misjudgement. If the risk of misjudgement is to be avoided at all costs, there can be no innovation. The audit of estimates in general and fair values in particular, is a minefield. There will always be developments that regulators will not have considered when issuing standards. A higher-level standard with fewer but tougher requirements, and more non-mandatory guidance material, would more readily accommodate innovation in audit.

#### Specialists engaged by companies and other third party sources

9. There are widely acknowledged problems with the independence of some specialists engaged by companies and of other third party valuation sources. There are often simply too few to go around. There are also widely acknowledged problems with the availability of external evidence to support their valuations. Specialists and other third parties often use proprietary information or methodologies that they are unwilling to release to auditors. The proposals for auditors to look for evidence from other third party sources and evaluate whether a

<sup>1</sup> The PCAOB proposed a rebuttable presumption to the effect that if audit work was not documented, the presumption would be that it had not been performed when its exposed Auditing Standard No 3 on audit documentation for comment back in 2004. Commentators, including ICAEW opposed that presumption and it was withdrawn, but the opposition was to substance of the rebuttable presumption, not rebuttable presumptions *per se*. The rebuttable presumption of fraud risk in revenue recognition has been in operation for some time in ISA 240 on fraud. Rebuttable presumptions are also used in IFRS.

methodology is accepted in a particular industry are impractical in the all too common cases in which there are no other third party sources of information about bespoke products, or where any such sources are unwilling or unable to provide the relevant information. The proposals to treat valuations from specialists and other third parties as if they were generated by the company itself simply ignore the issues. We are concerned that if these proposals are developed, they will create confusion by blurring the responsibilities of management and auditors, and that they will effectively require auditors to form judgements on the basis of non-existent or unobtainable evidence. A broad debate involving a number of stakeholders is needed regarding how such valuations should be audited.

#### **Achieving the objective of the CP**

**10.** We strongly suggest that in order to achieve the objectives of the CP:

- auditors should be encouraged to challenge management and third parties, rather than simply seeking corroborative evidence supporting management's assertions;
- the PCAOB acknowledge, and open a dialogue concerning the structural issues relating to
  - the competencies and resources of auditors in the face of highly qualified and remunerated specialists when dealing with complex valuation models;
  - the difficulties associated with the development of complex accounting estimates and fair values, and in particular the internal control and evidential issues;
  - the need to find a way for auditing standards to encourage rather than stifle innovation.



## ANSWERS TO SPECIFIC QUESTIONS

### Current requirements and practices

**Q1. Does the information presented above reflect aspects of current audit practice? Are there additional aspects of current practice, of both larger and smaller audit firms – including centralized testing, the use of third parties, or specific challenges to auditing accounting estimates and fair value measurements – that are relevant to the staff's consideration of the need for standard setting in this area?**

**Q2. The staff understands differences may exist in the use of centralized or national-level pricing desks at audit firms. The staff is interested in current practice for interaction between national-level pricing desks and engagement teams. For example, how (and by whom) are national-level pricing desks supervised given the engagement partner's responsibility under the risk assessment standards? How should these considerations affect auditing standards?**

**Q3. What other issues relevant to the need for standard setting should be considered by the staff?**

- 11.** We note in our major points above the widely acknowledged problems in this area: complex accounting issues and mathematical models used in valuations are compounded by a lack of available audit evidence and expertise. These issues are largely beyond the control of auditors but auditors can and should be encouraged, through auditing standards, to challenge management, third parties and specialists, more than they do now, on a number of different levels.
- 12.** We also note our belief that the outcome of this debate might be more effective if greater account were taken of a number of wider structural issues, including the competence of auditors and the resources available to them. Taking estimates and fair values at face value and simply seeking corroborative evidence to support management's assertions, without challenging them, is not acceptable. But dealing with a lack of auditor confidence, and a lack of ability or willingness to challenge, cannot be achieved simply by setting out in detail the questions auditors should ask and what they should do in any given set of circumstances. The people who develop and promote the complex estimates and fair values embedded in some financial instruments are highly qualified, highly paid and sophisticated. The models on which such instruments are based are often technically complex. An effective audit requires auditors with the experience, competence and time budgets to effectively challenge these bases of calculation. At present, auditors do not always have the necessary combination of qualities and resources. We urge the PCAOB to acknowledge and address these issues, where possible, in its deliberations.
- 13.** We do not believe that auditing standards need to address issues relating to national-level pricing desks. They are essentially issues of methodology and are not relevant to the development of auditing standards. The principles and requirements that should be applied by auditors using national-level pricing desks are the same as those that should be applied by auditors that do not.

### Different possible approaches

**Q4. Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included within a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?**

**Q5. Are there considerations affecting accounting estimates relative to the financial reporting frameworks, such as recent changes to revenue recognition, that the staff should specifically take into account in developing a potential new standard?**

**Q6.** Are there other considerations relating to the alternatives explored, including other alternatives not discussed in this paper, that the staff should consider in connection with this project?

**Q7.** Based on commenters' experience in applying ISA 540 (or AU-C 540), are there any aspects, positive or negative, of a single-standard approach that the staff should consider in connection within a potential new standard? Are there any other lessons learned from the implementation of ISA 540 (or AU-C 540) that the staff should consider in its approach to standard setting in this area?

**Q8.** If AU sec. 332 were to be superseded, are there elements that should be retained? With respect to derivatives and securities, are there enhancements related to auditing assertions other than valuation that the staff should consider?

**Q9.** Are there considerations relevant to auditing accounting estimates and fair value measurements including other regulatory requirements<sup>37</sup> specific to certain industries that the staff should take into account?

- 14.** We note in our major points above our full support for international harmonisation and the consolidation of audit requirements for estimates and fair values into a single standard. There are many similarities (as well as some important differences) between estimates and fair values and harmonisation is a worthy objective of benefit to US investors. The PCAOB should seek to build on the good work performed by IAASB in this area. It is, however, essential to recognise that IAASB's ability to bring estimates and fair values together was dependent on the framework within which its standards are developed. This is a principles-based framework with high-level requirements supported by non-mandatory application material. In this case, it is buttressed by a non-mandatory IAPN.
- 15.** ISA 540's success hangs on the distinction between high-level requirements and non-mandatory application material. This distinction does not exist in the PCAOB's standards and the overall impression given by this CP is that staff would like to develop mandatory requirements in areas that are currently non-mandatory within ISA 540 and IAPN 1000.
- 16.** We also note in our major points above the importance of auditor judgement, challenge and professional scepticism. Auditors need the competencies and resources to challenge management and third parties. Auditor resources include auditing standards that permit and encourage them to exercise judgement. The word 'challenge', in the context of challenging management, does not appear in the CP at all. The opportunity should be taken to reinforce the importance of challenge and scepticism and the PCAOB might consider using material from Staff Audit Alert Practice Alert No. 10 on professional scepticism in this context. Preparers and auditors should be encouraged to recognise their responsibilities for the development and audit respectively of estimates and fair values, especially where third parties are involved. These responsibilities cannot be outsourced or delegated.
- 17.** Many of the specific requirements proposed in the CP would be better expressed as guidance on how to apply the main principles, rather than as explicit requirements. Alternatively, requirements might be better expressed as requirements for auditors to consider whether the performance of a number of different procedures, from a list of possible procedures, is appropriate.
- 18.** Specific aspects of the audit of fair values peculiar to that area include the fact that the audit of fair values is more process-driven than the audit of other estimates. At the same time, developing and auditing fair values often involve a high-level of judgement and the expertise required to exercise it. The overall impression given by this CP is that the process requirements surrounding fair values are being imposed on estimates generally and that the PCAOB is adding to current requirements in an attempt to make sure that there is less scope for abuse. The overall effect of this in terms of additional *requirements* raises the bar. But we are not convinced that the additional cost of all of this, ultimately borne by investors, will result in proportionately enhanced benefits. There is a real risk that the outcome will be ever-

lengthier checklists that will do little to improve the quality of accounting estimates or the audit thereof, or enhance auditor scepticism.

19. Innovation in audit is desired by regulators and firms alike but it comes at a price. Innovation requires judgement and judgement always involves the risk of misjudgement. If the risk of misjudgement is to be avoided at all costs, there can be no innovation. The audit of estimates in general and fair values in particular, is a minefield. There will always be developments that regulators will not have considered when issuing standards. A principles-based standard with fewer but tougher requirements, and more non-mandatory guidance material, would more readily accommodate innovation.
20. For these reasons, we do not support specific procedures to address particular standards, such as the new revenue recognition standard. Similarly, we do not believe that there are considerations specific to certain industries that staff should take into account. Specific procedures will be required for every industry development and every time a new standard is implemented. Auditors will simply default to whatever is mandated rather than using their professional judgement to develop the most appropriate procedures within the relevant framework.

### Risk assessment

**Q10. Should the requirements for identifying and assessing risks of material misstatement with respect to accounting estimates and fair value measurements – including risk assessment procedures – be included in Auditing Standard No. 12 or be separately set forth in a potential new standard on auditing accounting estimates?**

**Q11. Are there additions or revisions to the existing requirements in PCAOB standards for identifying and assessing risks of material misstatement regarding accounting estimates that should be considered?**

21. The specific risk assessment requirements and procedures associated with accounting estimates and fair value measurements should be included in AS No. 12.

### Understanding processes

**Q12. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other matters relevant to understanding the process used to develop accounting estimates or fair value measurements that could be included in Auditing Standard No. 12?**

**Q13. In circumstances where the company uses information obtained from a third party, are there matters— such as information systems at third parties, controls that management has over the work of third parties, and controls at third parties— not currently addressed in AU sec. 324, Service Organizations, or other standards that the staff should consider?**

22. The potential amendment to AS No. 12 described is appropriate and it might also refer to fair values.
23. Where an entity uses third party information, auditors need to use their judgement regarding the extent of work needed on matters such as information systems at the third party, controls that management exercise over the work of third parties, and controls at third parties. ISA 402 *Audit considerations relating to entities using service organizations* and ISAE 3402 *Assurance reports on controls at a service organisation* are relevant but we strongly caution against taking non-mandatory guidance for these materials (and/or SAS 70) and turning them into requirements.

### Determining significant risks

**Q14. Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other factors that would be relevant in the auditor's evaluation of the degree of complexity of**

judgment in the recognition or measurement of an accounting estimate or fair value measurement (e.g., the use of a third party for the determination of a price)?

**Q15.** Are there additional factors specific to accounting estimates or fair value measurements that would be useful in identifying significant accounts and disclosures, or in determining significant risks that should be considered?

**Q16.** Are there certain types of accounting estimates or fair value measurements that should be presumed to be significant risks?

**24.** The potential amendment to AS No. 12 described is clear but it is not appropriate for the generality of accounting estimates.

**25.** We note in our major points above our belief that auditing standards should not set out presumptions regarding which risks are significant. We have consistently opposed presumptions such as these in auditing standards and while we work with those that exist, we do not believe that a case has yet been made for their positive impact on audit quality. Nevertheless, if the PCAOB decides that some specific guidance is needed regarding the identification of significant risks, we believe that a *rebuttable* presumption that certain risks are significant would be better. The onus would be on auditors to show that the risk is not significant and would mean that in cases in which the risk was not in fact significant, work would not be performed for compliance purposes only. Such work is not cost-free.

**Responding to risks: additional substantive procedures and conformity with the applicable framework**

**Q17.** Are there considerations particular to the timing and extent of these procedures (e.g., interim audit procedures), beyond the requirements of paragraphs 42–46 of Auditing Standard No. 13, that the staff should consider including in a potential new standard?

**Q18.** Is the potential amendment to Auditing Standard No. 13 described above helpful in emphasizing the auditor's consideration of the applicable accounting framework when auditing significant accounts and disclosures?

**Q19.** Should a potential new standard include specific audit procedures related to auditing disclosures of accounting estimates (e.g., disclosures on levels within the fair value hierarchy)?

**26.** The potential amendment to AS No. 13 described would be more helpful if the word 'considering' were used in the place of 'testing'.

**27.** We do not believe that specific audit procedures related to disclosures of accounting estimates would be helpful, particularly if they are linked to specific disclosure requirements, since they risk being outdated when disclosure requirements change. Principles-based standards that can accommodate changes in accounting standards are preferable. Guidance material in this area might be helpful, or a requirement to the effect that auditors should consider whether the performance of a number of different procedures, from a list of possible procedures, is appropriate in the circumstances.

**Tests of controls**

**Q20.** Given the existing requirements related to testing controls in Auditing Standard No. 13 (and Auditing Standard No. 5, as applicable), would specific requirements on testing internal controls over accounting estimates be useful (e.g., evaluation of design and operating effectiveness of key review controls over accounting estimates)?

**28.** We do not believe that specific requirements on testing internal controls over accounting estimates would be useful. However, guidance material in this area might be helpful, or a requirement to the effect that auditors should consider whether the performance of a number of different procedures, from a list of possible procedures, is appropriate in the circumstances.

**Procedures relating to significant risks**

**Q21.** Should a potential new standard include specific audit procedures that would be applicable when the auditor identifies and assesses a risk related to accounting estimates as a significant risk? If so, are there factors regarding measurement uncertainty or any other characteristics relevant to staff considerations of potential audit requirements?

**29.** We do not believe that a new standard should specify audit procedures applicable to risks assessed as significant. Many auditing standards include specific audit procedures applicable to risks assessed as significant but they almost always involve auditors *considering* the performance of a number of different procedures, from a list of possible procedures.

### **Substantive procedures**

**Q22.** Are there specific factors that affect the auditor's selection of approaches related to testing accounting estimates? What considerations would be appropriate for the auditor to take into account when determining which approach (or combination of approaches) for testing accounting estimates should be selected?

**Q23.** Aside from testing management's process, developing an independent estimate, or reviewing subsequent events and transactions as further discussed, should a potential new standard allow for or require other approaches to testing accounting estimates? If so, what other approaches would be appropriate?

**Q24.** Are there certain types of accounting estimates for which substantive procedures other than those described in this paper would provide better audit evidence?

**30.** The auditor's selection of approaches related to testing accounting estimates is important. Where there is a choice between developing an independent estimate, reviewing subsequent events or performing work on management's process, the latter is often chosen. It might be helpful to suggest that this is not always the most appropriate approach and that a display of professional scepticism is demonstrated by challenge rather than simply seeking corroborative evidence.

**31.** When IAASB last revised ISA 540, it actively considered whether there were any 'other' general approaches to testing accounting estimates, but it did not find any workable alternatives. The three established approaches are broad, have stood the test of time, and we are not aware that they have acted as a brake on innovation. We do not see any great merit in allowing for alternatives in these circumstances.

**32.** There are for sure certain types of estimates for which substantive procedures other than those described might provide better audit evidence, but we do not believe that auditing standards can or should attempt to cover all eventualities in this level of detail.

### **Testing the company's process and evaluating the method used**

**Q25.** Are there enhancements to the existing requirements for testing data used by management to develop the accounting estimate the staff should consider?

**Q26.** Are the potential requirements described above for evaluating whether the company's method used to develop accounting estimates appropriate for both accounting estimates and fair value measurements?

**Q27.** In circumstances where the financial reporting framework does not specify the use of a particular valuation method, is the consideration of methods accepted by the company's industry relevant? Are there other criteria that auditors could use to evaluate the appropriateness of the company's method used to develop accounting estimates?

**33.** The potential requirements described above for evaluating the appropriateness of the method used are appropriate for the generality of accounting estimates. For fair values, there will be certain cases in which it is not possible to evaluate whether the valuation method is accepted within the industry because the information necessary to ascertain the position and make the evaluation cannot be obtained by auditors.

- 34.** Where the reporting framework does not specify the use of a particular valuation method, considering methods accepted in the relevant industry is relevant, if that information is available to auditors.

### Identifying significant assumptions

**Q28.** Would a requirement for the auditor to determine which assumptions used by management are significant assumptions present difficulties in practice? Should the staff consider a requirement for the auditor to identify assumptions not used by management, which might be important to the recognition or measurement of the accounting estimate?

**Q29.** Is the potential requirement suggested above clear and appropriate for both accounting estimates and fair value measurements? Are there other specific characteristics of significant assumptions that should be included?

- 35.** We note in our major points above, and in our answer to question 16, our belief that it is not helpful for auditors to presume that certain risks are significant. We believe that auditors should make this assessment. We note that if there has to be a presumption, a rebuttable presumption would be better. Determining which assumptions are significant is similarly a matter of judgement and we would much prefer that the proposed 'list of significant assumptions' were converted to a non-exhaustive 'list of factors that auditors may consider, if applicable, when determining whether an assumption is significant', similar to the list described in our answer to Q30 below.
- 36.** We are concerned that the list above may result in too many assumptions being identified as significant simply because they meet one of the characteristics list above, when in practice they may not have a material impact on the estimate or fair value measurement. In such circumstances it would not be effective for the auditor to be required to perform audit procedures on such assumptions. Item a. in the list above seems to be an overarching category, encompassing items b-f within it. In isolation, items b-f might all catch minor variations in assumptions.

### Evaluating the reasonableness of significant assumptions

**Q30.** Are the suggested factors described above appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluating the reasonableness of significant assumptions relevant to accounting estimates?

- 37.** The non-exhaustive, 'if applicable' list of suggested factors for evaluating the reasonableness of significant assumptions is similar to the list described in our answer to Q29 above. This is appropriate for principles-based standards. The factors described are appropriate. It would be better if the phrase 'should evaluate' were replaced with the phrase 'may consider'.

### Management's use of a specialist

**Q31.** Is the potential requirement described above appropriate for all types of accounting estimates? Are there other considerations that should be taken into account in applying this requirement to accounting estimates?

- 38.** We note in our major points above the widely acknowledged problems with the independence of some specialists engaged by companies and other third party valuation sources. There are often simply too few to go around. Further problems with the availability of external evidence to support their valuations arise from their use of proprietary information or methodologies that they are unwilling to release to auditors. The proposals for auditors to look for evidence from other third party sources and evaluate whether a methodology is accepted in a particular industry are impractical in the all too common cases in which there are no other third party sources of information about bespoke products, or where any such sources are unwilling or unable to provide the relevant information. The proposals to treat valuations from specialists and other third parties as if they were generated by the company itself simply ignore these

issues. If these proposals are developed, we are concerned that they will create confusion by blurring the responsibilities of management and auditors, and that they will effectively require auditors to form judgements on the basis of non-existent or unobtainable evidence. A broad debate involving a number of stakeholders is needed regarding how such valuations should be audited.

- 39.** We therefore strongly disagree with the proposed requirement to treat valuations from specialists engaged by the entity as if they were generated by the company itself, for any type of estimate. It is inefficient, as well as a strange pretence. It is also inconsistent with the requirements of COSO 2013, which require management to understand how the valuation has been prepared in detail, in terms of input assumptions, data sources and methodologies, and to understand the specialist's competence and independence. It makes no sense at all for auditors to simply ignore this work. Auditors should instead be required to take full account of the degree of actual and perceived independence and objectivity of such specialists in determining the nature and extent of work that is required to evaluate the information they provide.

#### **Data and assumptions produced by the company/third parties and used by the auditor in developing an independent estimate**

**Q32.** Are the potential requirements described above for developing an independent estimate, including the potential requirements regarding testing data and assumptions, clear and appropriate for both accounting estimates and fair value measurements? Would these requirements present challenges for certain types of accounting estimates and fair value measurements?

**Q33.** Are there additional considerations that should be addressed with respect to information obtained by the auditor from a third-party source?

**Q34.** Are there factors that the staff should consider when developing potential audit requirements for testing the reliability and relevance of data independently derived by the auditor or obtained from other sources?

**Q35.** Are there other matters relevant to developing a range that a potential new standard could address (e.g., requiring a sensitivity analysis)?

- 40.** The requirements for developing an independent estimate are clear and appropriate for both accounting estimates and fair value measurements.

#### **Subsequent events**

**Q36.** Are the potential requirements described above for evaluating audit evidence from events or transactions that occur subsequent to the measurement date through the date of the auditor's report, appropriate for both accounting estimates and fair value measurements?

**Q37.** Are there additional factors that should be taken into consideration when evaluating the relevance of the audit evidence obtained from events or transactions that occur subsequent to the measurement date through the date of the auditor's report?

- 41.** There are certain areas of GAAP, such as ASC 740 relating to uncertain tax positions, which limit the extent to which subsequent events are relevant to the measurement of a position at the reporting date. While the phrase, 'relevant to the recorded accounting estimate' may have been intended to cover this situation, we believe it would be helpful to add a bullet relating to consideration of GAAP requirements regarding subsequent events.

#### **Use of third parties**

**Q38.** Would the potential requirements described above address procedures performed by audit firms that use a centralized testing approach? Would these requirements create issues in practice for smaller firms?

**Q39. Should the potential new standard require the auditor to use a third party that is different from the third party used by management? Would such a requirement present challenges for certain types of accounting estimates and fair value measurements?**

**42.** We note in our major points above our opposition to the proposed requirement to treat information provided by third-party sources used by the company as if it was produced by the company itself. This is not appropriate for any type of estimate. To treat information from such sources as if it was generated by the company itself is inefficient, as well as a strange pretence. It is also inconsistent with the requirements of COSO 2013, which require management to understand how the valuation has been prepared in detail, in terms of input assumptions, data sources and methodologies, and to understand the specialist's competence and independence. It makes no sense at all for auditors to simply ignore this work. Auditors should instead be required to take full account of the degree of actual and perceived independence and objectivity of such third parties in determining the nature and extent of work that is required to evaluate the information they provide.

#### Using evidence from third parties

**Q40. Would the factors noted above help the auditor in evaluating the reliability and relevance of evidence obtained from third-party pricing sources? Are there other factors that are applicable in determining the reliability or relevance of evidence obtained from third-party pricing sources?**

**Q41. Are there other approaches to testing evidence obtained from third-party pricing sources that the staff should consider?**

**Q42. How could a potential new standard differentiate between a third-party pricing source and a specialist?**

**Q43. Would the potential requirement address the various methods used by third-party pricing sources for determining fair value measurements of financial instruments (e.g., use of consensus pricing and proprietary models)?**

**43.** The factors noted would help auditors evaluate the reliability and relevance of evidence from third-party pricing sources, but not if they are mandatory requirements to be performed on every occasion.

**44.** There are likely to be other approaches which the PCAOB staff may consider, but attempting to cover all eventualities in this level of detail in auditing standards is inappropriate and, very likely, ineffective.

**45.** There is no need for a new standard to differentiate between a third-party pricing source and a specialist as the same principles apply to both when evaluating work performed by them.

#### Economic impacts

**Q44. What are the likely economic impacts, including benefits and costs, of the potential alternatives discussed in this consultation paper? Are there any unintended consequences that might result from the alternatives?**

**Q45. As part of considering the need for change, the staff is reviewing academic literature, including identified papers that synthesize the academic literature.<sup>82</sup> Is there ongoing research or other information that the staff should consider in evaluating the economic aspects of changes in standards for auditing accounting estimates and fair value measurements?**

**46.** If a new standard follows the approach proposed, it is likely to significantly increase costs in some areas, particularly by effectively ignoring third party involvement. In our view any benefit of this will be limited. The proposals also appear to be pushing for more involvement of specialists in audits, which will also increase costs.



**GILBERT F. VIETS**

2105 North Meridian Street, Suite 400  
Indianapolis, Indiana 46202  
November 3, 2014

**Ms. Phoebe W. Brown**

**Office of the Secretary**

**PCAOB**

1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Re: Staff Consultation Paper, *Auditing Estimates and Fair Value Measurements***

Dear Board Members:

Thank you for an opportunity to comment on your consideration of auditing estimates and reported fair values.

Numbers reported in many financial statements are similar to an imagined condition of company footnotes expressed in random languages. The footnotes might be absolutely correct, but unfathomable.

Currency is not a steady or dependable measure. The yardstick keeps changing because of inflation and deflation, exchange rate variations and people's attitudes. The danger intensifies when "market value" and all its variations is added to numbers that get reported. Financial statements are still useful, but erratically multi lingual.

"Fair value" or "market value" is necessary for marketable securities in collective funds where investors have the ability to get in or out as they choose. Current value is also useful to judge a "lower of cost or market" determination in cost based reporting. But, fundamental investors find it difficult to use statements geared more for traders, or some blending thereof. Anyone who says this has not gotten us in trouble must have been asleep during the savings and loan crisis, the "dot com" bubble, the Enron disaster, the housing bubble and liquidity crisis and recession we just experienced; from history, how could they have justified reporting market value of the Mississippi Company and South Sea Company? Using today's standards, such reporting would have been acceptable with a clean audit opinion. It is not farfetched to say "Gresham's Law" is at work; clipping a coin is harder than making a journal entry. If we continue expanding the multi lingual nature of reported financial numbers, we should at least try to set standards for supporting and auditing the numbers.

I offer five suggestions to everything else in your comprehensive list of questions:

1. Prohibit registered independent public accounting firms from providing valuation services, not just for their own audit clients but for anybody else. Providing these services destroys their ability to

independently judge other providers. (*Peyton Manning should not referee Patriot games while he tries to win a championship for the Broncos.*) Further, a consulting/audit firm that has determined the audited “fair values” for a company’s assets or liabilities establishes a barrier to its ability to be selected as the auditor later; it is impossible to ignore earlier responsibility for creating valuations carried forward. Both situations are “appearance” problems and real conflicts.

2. Consider adding something similar to the following as a basic statement, or as a part of the accounting principles footnote (*The example is simplified. It needs refinement to ensure maximum clarification of the extent to which the numbers come from different languages with “poles apart” mindsets*):

**BASIS OF REPORTING**

	<b>ASSETS</b>	<b>LIABILITIES</b>	<b>REVENUES</b>	<b>EXPENSES</b>
<b>Direct transaction</b>	<b>60%</b>	<b>65%</b>	<b>90%</b>	<b>70%</b>
<b>Management Estimate</b>	<b>20%</b>	<b>15%</b>	<b>3%</b>	<b>28%</b>
<b>Market Value</b>				
<b>Level I</b>	<b>15%</b>	<b>12%</b>	<b>0%</b>	<b>2%</b>
<b>Level II</b>	<b>3%</b>	<b>8%</b>	<b>7%</b>	<b>0%</b>
<b>Level III</b>	<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Amounts reported on direct transactions and estimates made prior to 2004</b>				
<b>(Inflation has devalued the \$ by 25% in last 10 years)</b>	<b>30%</b>	<b>20%</b>	<b>0%</b>	<b>26%</b>
<b>Amounts reported requiring conversion from native currency to U.S. dollar</b>				
	<b>22%</b>	<b>15%</b>	<b>30%</b>	<b>31%</b>

The presentation provides a chance to consider the quality of financial reporting based on the inherent strengths and weaknesses of the measuring sticks used, relative to those of other companies, and the likelihood of the future reporting effect of entrenched costs versus market value changes and estimates.

3. Review the standards of the valuation industry for training, procedures, independence and ethics. A good reference for such a review is the work of the United States Treasury Advisory Committee on the Auditing Profession which ultimately made recommendations relating to human capital; firm structure and finances; and concentration and competition.

4. Reject any suggestion of liability limitation for registrants, registered accounting firms and valuation experts. They certainly have the right to defend their approaches and results of their efforts, but the system will be weak if they have safe harbors for bad results.

5. The Public Company Accounting Oversight Board should develop public databases of empirical results of estimates and fair values that can provide insight to audit committees and investors. Help us understand if this is working and who is doing a good job.

Good luck!

Sincerely,

Gil Viets



November 3, 2014

**VIA E-MAIL [comments@pcaobus.org](mailto:comments@pcaobus.org)**

Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street, N.W.  
Washington, D.C. 20006-2803

**Re: PCAOB Staff Consultation Paper, Auditing Accounting Estimates and Fair Value Measurements (“Staff Consultation Paper”)**

Dear Members of the Board and Staff:

WeiserMazars LLP (“WeiserMazars”) welcomes the opportunity to comment on the Public Company Accounting Oversight Board’s (the “PCAOB” or the “Board”) Staff Consultation Paper. WeiserMazars supports the PCAOB in its efforts to enhance audit quality in audits of issuers and broker-dealers in order to provide investors and other financial statement users increased transparency in financial reporting so they can make appropriately informed investment decisions. We also support the Board in its efforts to reexamine the existing standards relating to the auditing of accounting estimates and fair value measurements.

WeiserMazars is a firm with over 100 partners and 650 professionals in eight offices across the United States (“U.S.”), an independent member firm of the Mazars Group, an organization with over 14,000 professionals in more than 70 countries around the world, and a member of Praxity, a global alliance of independent firms. Because we are a U.S. registered public accounting firm, and a member of an international network, our perspectives may differ from our international counterparts due to variations in the client population and litigation environment.

Our responses to the Staff Consultation Paper are driven primarily by our position in the U.S. marketplace as a medium-sized public accounting firm servicing mostly small business issuers and broker-dealers. Therefore, our focus is to address our concerns and challenges to companies with similar characteristics to our issuer client base as well as to similar accounting firms.

WEISERMAZARS LLP  
135 WEST 50TH STREET – NEW YORK, NEW YORK – 10020  
TEL: 212.812.7000 – FAX: 212.375.6888 – [WWW.WEISERMAZARS.COM](http://WWW.WEISERMAZARS.COM)

WEISERMAZARS LLP IS AN INDEPENDENT MEMBER FIRM OF MAZARS GROUP.





## Overall Views

We believe there should be a thorough reassessment of the existing requirements under PCAOB AU sec. 342, *Auditing Accounting Estimates*, PCAOB AU sec. 328, *Auditing Fair Value Measurements and Disclosures* and PCAOB AU sec. 332, *Auditing Derivative Instruments, Hedging Activities and Investments in Securities*.

We believe that the existing PCAOB auditing standards do not adequately address all of the risks and related audit responses to reduce such risks to an acceptable level due to the significant accounting and financial reporting changes that have occurred during the last decade. We believe it's essential for the Board to collectively align its suite of risk assessment standards, establish specific auditing guidance with respect to using third parties and create standards that promote greater consistency and effectiveness in application when auditing accounting estimates and fair value measurements.

1. ***Does the information presented above reflect aspects of current audit practice? Are there additional aspects of current practice, of both larger and smaller audit firms – including centralized testing, the use of third parties, or specific challenges to auditing accounting estimates and fair value measurements – that are relevant to the staff's consideration of the need for standard setting in this area?***

Yes, we believe that the information presented in the Staff Consultation Paper reflects current practice of how many registered public accounting firms (auditing in the small business environment) use third-party sources in determining accounting estimates and fair value measurements when dealing with the pricing of financial instruments. Based on our experience, we have seen various combinations of audit procedures being executed based on the nature of observable versus unobservable inputs. The Staff should consider developing additional practical guidance for auditors on how to challenge, and make inquiry of third-party sources related to how they obtained the relevant information and whether such information is derived from observable or unobservable inputs. We believe auditors need to better understand the nature of how pricing of financial instruments is determined in order to effectively audit them.

4. ***Do accounting estimates and fair value measurements have sufficiently common attributes that the audit procedures should be included within a single standard? Are there limitations to the approach of having a single standard address both auditing accounting estimates and fair value measurements?***

Yes, we believe there are sufficient common attributes to combine audit procedures relating to accounting estimates and fair value measurement into one overall standard. Commonalities include:

- 1) Obtaining and evaluating sufficient appropriate evidential matter to support or provide reasonable assurance that accounting estimates or fair value measurements are in conformity with an applicable financial reporting framework;
- 2) Management's responsibility for developing the accounting estimates or the fair value measurements, included in the financial statements;



- 3) Management's responsibility for establishing a process for preparing accounting estimates or determining fair value; and
- 4) Auditors' responsibility to evaluate the accounting estimate or fair value measurement.

As audit procedures are similar for establishing the reasonableness of accounting estimates and fair value measurements, combining them into one standard would be effective and efficient because many of the areas already have significant similarities as to objective, management responsibilities, auditor responsibilities, and evaluation and testing. While we believe it is significantly more complex to determine the reasonableness of a fair value measurement as compared to an accounting estimate, the overlap in the standards should not be ignored. Any new combined standard may need to elaborate on the additional work associated with evaluating a fair value measurement.

We do not see any significant limitations in having one comprehensive standard that addresses both accounting estimates and fair value measurements. We believe a fair value measurement is an accounting estimate, albeit one that may require more steps to adequately assess.

**10. *Should the requirements for identifying and assessing risks of material misstatement with respect to accounting estimates and fair value measurements – including risk assessment procedures – be included in Auditing Standard No. 12 or be separately set forth in a potential new standard on auditing accounting estimates?***

We believe that certain aspects of the requirements relating to the identification and assessment of risks of material misstatement with respect to accounting estimates and fair value measurements; should be included in Auditing Standard No. 12 ("AS 12"). AS 12 is the primary authoritative literature related to identifying and assessing risks of material misstatement, so any such guidance should be included therein.

**12. *Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other matters relevant to understanding the process used to develop accounting estimates or fair value measurements that could be included in Auditing Standard No. 12?***

Yes, the potential amendment to AS 12 is clear and appropriate for both accounting estimates and fair value measurements. We believe that there are other relevant matters to understand the processes used to develop accounting estimates or fair value measurements. For example:

- 1) entity controls over the processes to develop accounting estimates or fair value measurements; and
- 2) changes to controls over management processes (both to monitor the need for changes, as well as the process surrounding changes to the methods/models).



- 14. *Is the potential amendment to Auditing Standard No. 12 described above clear and appropriate for both accounting estimates and fair value measurements? Are there other factors that would be relevant in the auditor's evaluation of the degree of complexity of judgment in the recognition or measurement of an accounting estimate or fair value measurement (e.g., the use of a third party for the determination of a price)?***

Yes. The potential amendment to AS 12 is clear and appropriate for both accounting estimates and fair value measurements. We believe that there are other relevant matters to evaluate the degree of complexity of judgment in the recognition or measurement of an accounting estimate or fair value measurement. For example:

- 1) the degree of subjectivity associated with the selection of the model utilized; and
- 2) the involvement of a valuation specialist for the determination of price.

- 16. *Are there certain types of accounting estimates or fair value measurements that should be presumed to be significant risks?***

Yes. There are certain types of accounting estimates and fair value measurements that are presumed to be significant risks when an auditor relies upon significant input from another party which makes an estimate of fair value.

An example of this is where the auditor receives an estimable and probable opinion from legal counsel. The auditor is required to understand and make a determination of whether the conclusion by counsel is reasonable.

Another instance whereby a significant risk could occur is when an auditor assesses management's valuation of an investment, such as a Level 3 security. Although the auditor may be able to find a comparable investment to support management's valuation, there may still be significant contingent risk related to the investment which does not become evident nor is disclosed during the audit process.

- 19. *Should a potential new standard include specific audit procedures related to auditing disclosures of accounting estimates (e.g., disclosures on levels within the fair value hierarchy)?***

Yes. We believe it would be helpful for the potential new standard to include specific audit procedures related to auditing disclosures of accounting estimates. The current guidance (i.e. AU Sections 328, 332, and 342) was put in place prior to the issuance of SFAS No. 157 *Fair Value Measurements* (issued in September 2006 as the predecessor to ASC Topic 820), which significantly changed the disclosures required for fair value measurements. Ensuring that the potential new standard addresses disclosures clearly will lead to less inconsistent and inadequate audit procedures performed by audit firms related to the testing of disclosures, and a better understanding of the reporting requirements.



- 21. *Should a potential new standard include specific audit procedures that would be applicable when the auditor identifies and assesses a risk related to accounting estimates as a significant risk? If so, are there factors regarding measurement uncertainties or any other characteristics relevant to staff considerations of potential audit requirements?***

Yes. We believe a potential new standard should clearly include specific audit guidance for auditors to presume that accounting estimates and fair value measurements are deemed to be significant risks (and possible fraud risk factors).

These procedures may include the following:

- 1) Whether an analysis of historical data could be applied in the particular situation;
- 2) Whether trends in the particular industry and relationships amongst other related accounts are relevant;
- 3) Whether the auditor's knowledge of comparable companies can be applied to a particular situation to give comfort that assumptions provided are appropriate; and
- 4) Whether the entity's internal controls adequately address the development of an estimate and the assumptions made are consistent with industry practices.

- 22. *Are there specific factors that affect the auditor's selection of approaches related to testing accounting estimates? What considerations would be appropriate for the auditor to take into account when determining which approach (or combination of approaches) for testing accounting estimates should be selected?***

The nature of the accounting estimate has a direct impact on the audit approach required to test that estimate. In certain circumstances, re-performance/recalculation may be an appropriate means for testing the estimate, while in other cases, the need to understand and test assumptions incorporated into the model are more important to understand the estimate. As an example, for a fair value measurement, the valuation of an operating company would use a different approach (income based approach) and method than the valuation of a real estate holding company (asset based approach), which would be different than a publically traded security (market based approach). The nature of the data available to test the estimate will also have a direct impact on determining what approach to use. For example, if historical data is not available, the auditor may need to find alternative means for testing the estimate (i.e., obtain relevant industry data for comparison).

The nature of the assumptions incorporated into the accounting estimate will have a direct impact on determining the audit approach used.





30. *Are the suggested factors described above appropriate for evaluating the reasonableness of significant assumptions? Are there other factors the auditor should assess when evaluating the reasonableness of significant assumptions relevant to accounting estimates?*

The suggested factors described in the Staff Consultation Paper, are appropriate in evaluating the reasonableness of significant assumptions. In particular, relevant industry, regulatory and other external factors, including economic conditions can be extremely useful in determining the reasonableness of significant assumptions.

31. *Is the potential requirement described above appropriate for all types of accounting estimates? Are there other considerations that should be taken into account in applying this requirement to accounting estimates?*

Yes. Our experience with specialists, specifically as it relates to valuation is that underlying data include many of the assumptions provided by client management. As such, we believe the potential requirement that the auditor test the information as if it were produced by the client management would be an appropriate requirement when utilizing a specialist.

33. *Are there additional considerations that should be addressed with respect to information obtained by the auditor from a third-party source?*

We believe the new standard should clarify the requirements if an auditor obtains data and assumptions from a third-party source to be used in developing an independent estimate in auditing the pricing, the auditor should consider: (a) obtaining and documenting the understanding of how the data was obtained and assumptions were developed by the third-party, (b) evaluate whether the third-party source is competent and has no conflicts of interest with the audit client (and its affiliates), and (c) if accounting estimate or fair value measurement is complex, the auditor should collaborate with an in-house or external specialist to review the auditor's independent estimate.

34. *Are there factors that the staff should consider when developing potential audit requirements for testing the reliability and relevance of data independently derived by the auditor or obtained from other sources?*

Yes. We believe the staff should consider providing guidance that connects all relevant standards to address: (a) the source and development of the information obtained and to compare such information to existing reliable models, (b) level of sufficient competency, and (c) assessing the relationship of who developed the data to the audit client (and its affiliates) for potential conflicts of interest and independence.



- 40. *Would the factors noted above help the auditor in evaluating the reliability and relevance of evidence obtained from third-party pricing sources? Are there other factors that are applicable in determining the reliability or relevance of evidence obtained from third-party pricing sources?***

Yes. However, after evaluating the experience, expertise and qualifications of the third-party pricing services and then determining, whether the approaches and methods used by the third-party pricing service are generally accepted in the industry, one should be able to conclude on the relevance and reliability of the pricing services estimate of fair value. This should be sufficient to serve as appropriate evidence. If the third-party pricing service is reputable and the methods and approaches are acceptable industry practice, we do not see the need to obtain additional evidential matter.

- 42. *How could a potential new standard differentiate between a third-party pricing source and a specialist?***

The potential new standard should clarify the linkage with existing standards to differentiate between a third-party pricing source and a specialist. Generally, a specialist provides a report or analysis supporting his/her conclusion of fair value. A third-party pricing service generally provides only an estimated price. The new standard should limit the work associated with the third-party pricing service to gaining an understanding as to the experience, expertise and qualifications of the third-party pricing service and obtain an understanding as to the methods employed by the third-party pricing service to evaluate whether they are reasonable and generally accepted in the industry. No further work should be necessary. A specialist, however, generally provides a report or analysis supporting their conclusion. The report or analysis generally includes details as to the approach, method and assumptions incorporated into the model. As such, the standard should require the auditor to examine the model, the method, and the assumptions used to determine the appropriateness of the specialists work and the reasonableness of the specialists conclusion. In addition, as in the case of the pricing service, the standard should require assessing the experience expertise and qualifications of the specialist.

- 44. *What are the likely economic impact, including benefits and costs, of the potential alternatives discussed in this consultation paper? Are there any unintended consequences that might result from the alternatives?***

We believe that the best alternative is to issue a single standard that addresses the auditing of accounting estimates and fair value measurements and supersedes the existing standards. The weaknesses of the other alternatives have been alluded to by the PCAOB staff within the Staff Consultation Paper.



The benefits to having a potential new standard (which replaces PCAOB AU Sections 328, 332, and certain aspects of 342), along with targeted amendments to AS 12, would (a) reduce inconsistencies in procedures between audit firms, and (b) provide key required guidance that is in synchronization with the risk assessment standards, the complexity of the current financial reporting frameworks, and the complexity of the continuously evolving financial instruments market. We believe that the Board and its Staff investment of time, energy and resources in this project will enhance audit quality for both auditors and users of audited financial information.

The costs revolve around additional training for auditors, as well as targeted and appropriate communication to clients regarding additional required procedures.

### **In Summary**

We applaud the Board in its efforts in reassessing its existing standards relating to the audit of accounting estimates and fair value measurements through solicitation of the public accounting profession, regulators, academia and others throughout our capital markets. We remain committed to participating in future discussions with the Board and its staff about how to best implement appropriate recommendations generated by the Staff Consultation Paper that would further enhance audit quality with respect to issuers and improve transparency. Lastly, we fully support the mission of educating investors and other users of financial statements about the process of auditing accounting estimates and fair value measurements of issuers and broker-dealers and the meaning behind the issuance of the independent auditor's report.

We would be pleased to discuss our comments with you at your convenience. Please direct any questions to Wendy B. Stevens, Partner-in-Charge, Quality Assurance, at (212) 375-6699 ([wendy.stevens@weisermazars.com](mailto:wendy.stevens@weisermazars.com)) or Salvatore A. Collemi, Director, Quality Assurance, at (212) 375-6552 ([Salvatore.collemi@weisermazars.com](mailto:Salvatore.collemi@weisermazars.com)).

Very truly yours,

A handwritten signature in black ink that reads 'WeiserMazars UP'.

WeiserMazars LLP

**NOTICE:** This is an unofficial transcript of the Public Company Accounting Oversight Board's Standing Advisory Group meeting on October 2, 2014 on Auditing Accounting Estimates and Fair Value Measurements.

The Public Company Accounting Oversight Board does not certify the accuracy of this unofficial transcript, which may contain typographical or other errors or omissions. An archive of the webcast of the meeting can be found on the Public Company Accounting Oversight Board's website at: [http://pcaobus.org/News/Webcasts/Pages/10022014\\_SAG.aspx](http://pcaobus.org/News/Webcasts/Pages/10022014_SAG.aspx)

## PUBLIC COMPANY ACCOUNTING OVERSIGHT BOARD

+ + + + +

## STANDING ADVISORY GROUP

+ + + + +

## MEETING

+ + + + +

THURSDAY  
OCTOBER 2, 2014

+ + + + +

The Standing Advisory Group convened in the FHI Building, 8th Floor, 1825 Connecticut Avenue, N.W., Washington, D.C. at 9:45 a.m., Martin Baumann, Standing Advisory Group Chairman, presiding.

PCAOB BOARD OF DIRECTORS

JAMES R. DOTY, Chairman  
LEWIS H. FERGUSON, Board Member  
JEANETTE M. FRANZEL, Board Member  
JAY D. HANSON, Board Member  
STEVEN B. HARRIS, Board Member

STANDING ADVISORY GROUP

MARTIN F. BAUMANN, PCAOB, Chief Auditor and  
Director of Professional Standards  
HON. RICHARD C. BREEDEN, Chairman and CEO,  
Breedon Capital Management LLC  
STEVEN E. BULLER, Chairman, Financial  
Accounting Standards Advisory Council  
LORETTA V. CANGIALOSI, Senior Vice President  
and Controller, Pfizer, Inc.  
WALTON T. CONN, JR., U.S. Partner and Global  
Head of Audit Methodology and  
Implementation, KPMG LLP

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

WALLACE R. COONEY, Vice President-Finance and  
Chief Accounting Officer, Graham  
Holdings Company

JAMES D. COX, Brainerd Currie Professor of  
Law, Duke University School of Law

CHARLES M. ELSON, Edgar S. Wollard, Jr., Chair  
of Corporate Governance and Director,  
John L. Weinberg Center for Corporate  
Governance, University of Delaware

MICHAEL J. GALLAGHER, Managing Partner,  
Assurance Quality, PwC

ROBERT L. GUIDO, Public company board member

ROBERT H. HERZ, CEO, Robert H. Herz, LLC;  
Executive-in-Residence, Columbia  
Business School, Columbia University

ROBERT B. HIRTH, JR., Chairman, Committee of  
Sponsoring Organizations of the Treadway  
Commission (COSO)

PHILIP R. JOHNSON, Nonexecutive Director,  
Yorkshire Building Society

JEAN M. JOY, Director of Professional Practice  
and Director of Financial Institutions  
Practice, Wolf & Company, P.C.

GUY R. JUBB, Global Head of Governance and  
Stewardship, Standard Life Investments,  
Ltd.

WAYNE A. KOLINS, Partner, BDO USA, LLP; Global  
Head of Audit and Accounting, BDO  
International Limited

JEFFREY P. MAHONEY, General Counsel,  
Council of Institutional Investors

DOUGLAS L. MAINE, Limited Partner and Senior  
Advisor, Brown Brothers Harriman & Co.

MAUREEN F. McNICHOLS, Marriner S. Eccles  
Professor of Public and Private  
Management and Professor of  
Accounting, Stanford University

RICHARD H. MURRAY, CEO, Liability Dynamics  
Consulting, LLC

JENNIFER PAQUETTE, Chief Investment Officer,  
Colorado Public Employees= Retirement  
Association

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

WILLIAM T. PLATT, Managing Partner-  
Professional Practice, and Chief  
Quality Officer-Attest, Deloitte &  
Touche, LLP

RACHEL D. POLSON, Partner, Baker Tilly  
Virchow Krause, LLP

GREGORY A. PRATT, Chairman, Carpenter  
Technology Corporation

SRIDHAR RAMAMOORTI, Associate Professor of  
Accounting, School of Accountancy, and  
Director, Corporate Governance Center,  
Kennesaw State University

BRANDON J. REES, Acting Director, Office of  
Investment, AFL-CIO

KEVIN B. REILLY, Americas Vice Chair,  
Professional Practice and Risk  
Management, Ernst & Young LLP

WALTER G. RICCIARDI, Partner, Paul, Weiss,  
Rifkind, Wharton & Garrison, LLP

PHILIP J. SANTARELLI, Chief Risk Officer,  
ParenteBeard, LLC

THOMAS I. SELLING, President, Grove  
Technologies, LLC

BRIAN D. THELEN, General Auditor and Chief  
Risk Officer, General Motors, LLC

SIR DAVID P. TWEEDIE, Chairman,  
International Valuation Standards  
Council

JOHN W. WHITE, Partner, Corporate  
Department, Cravath, Swaine & Moore  
LLP

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

OBSERVERS

BRIAN CROTEAU, Securities and Exchange  
Commission  
JIM DALKIN, General Accountability Office  
IAN DINGWALL, Department of Labor  
HARRISON GREENE, Federal Deposit Insurance  
Corporation  
ELIZABETH HEIMLICH, Financial Industry  
Regulatory Authority  
ARNOLD SCHILDER, International Auditing and  
Assurance Standards Board  
LARRY SMITH, Financial Accounting  
Standards Board  
BRUCE WEBB, Auditing Standards Board

PRESENTERS

MATT BRODIN, Evaluated Services Director,  
Interactive Data Corp  
PATRICK FINNEGAN, Board Member,  
International Accounting Standards  
Board  
LISA MILICI GAYNOR, Associate Professor,  
University of South Florida  
JACQUELINE S. HAMMERSLEY, Associate  
Professor of Accounting, University of  
Georgia  
ROBERT H. HERZ, Executive-in-Residence,  
Columbia Business School, Columbia  
University; public company board  
member  
BRIAN A. HUNT, Chief Executive Officer,  
Canadian Public Accountability Board  
JEAN M. JOY, Director of Professional  
Practice and Director of Financial  
Institutions Practice, Wolf & Company,  
P.C.  
JEREMY JUSTIN, Senior Director, Canadian  
Public Accountability Board  
JEFFREY P. MAHONEY, General Counsel, Council  
of Institutional Investors

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



ALAN MEDER, Senior Managing Director, Chief  
Risk Officer, Duff & Phelps Investment  
Management  
LIZA McANDREW MOBERG, Counsel, Office of  
International Affairs, PCAOB  
HELEN MUNTER, Director, Division of  
Registration and Inspections, PCAOB  
TOM OMBERG, Managing Partner, Professional  
Practice, Deloitte & Touche LLP  
SANDRA J. PETERS, Head, Financial Reporting  
Policy Group, CFA Institute  
THOMAS I. SELLING, President, Grove  
Technologies, LLC; author, "The  
Accounting Onion" blog  
LAWRENCE W. SMITH, Board Member, Financial  
Accounting Standards Board  
SIR DAVID P. TWEEDIE, Chairman,  
International Valuation Standards  
Council

PCAOB STAFF

NIKE ADESOYE, Assistant Chief Auditor  
HELEN MUNTER, Director, Division of  
Registration and Inspections  
GREG SCATES, Deputy Chief Auditor, Office of  
the Chief Auditor  
DOMINIKA TARASZKIEWICZ, Assistant Chief  
Auditor  
BARB VANICH, Associate Chief Auditor,  
Office of the Chief Auditor

## TABLE OF CONTENTS

Welcome and Introductions . . . . .	8
 <u>PCAOB and Global Inspection Findings</u>	
Helen Munter . . . . .	22
Brian A. Hunt . . . . .	29
Jeremy Justin . . . . .	30
Liza McAndrew Moberg . . . . .	41
 <u>Investor Perspectives and Related Considerations</u>	
Thomas I. Selling . . . . .	57
Sandra J. Peters . . . . .	66
Jeffrey P. Mahoney . . . . .	92
 <u>Academic Research and Related Perspectives</u>	
Lisa Milici Gaynor . . . . .	104
Jackie Hammersley . . . . .	120
 <u>Developments in Valuation</u>	
Sir David P. Tweedie, Chairman, International Valuation Standards Council . . . . .	143
Question and Answer Session . . . . .	157
Matt Brodin, Evaluated Services Director, Interactive Data Corp. . . . .	160
Question and Answer Session . . . . .	175
Alan Meder, Senior Managing Director, Chief Risk Officer, Duff & Phelps Investment Management . . . . .	190

Developments in Financial Reporting  
Frameworks Affecting Accounting Estimates

Patrick Finnegan, Board Member, International Accounting Standards Board . . . . .	199
Question and Answer Session . . . . .	208
Lawrence W. Smith, Board Member, Financial Accounting Standards Board . . . . .	211
Question and Answer Session . . . . .	215
Break . . . . .	221

Auditing Accounting Estimates:  
Auditor & Audit Committee Perspectives

Robert H. Herz . . . . .	223
Tom Omberg . . . . .	240
Jean Joy . . . . .	256
Comments and Remarks . . . . .	266

Overview of Staff Consultation Paper  
and Related Discussion

by Barbara Vanich, Associate Chief Auditor, PCAOB . . . . .	286
Further Comments and Remarks by Douglas Maine . . . . .	289
Closing . . . . .	289

1 P R O C E E D I N G S

2 9:47 a.m.

3 MR. BAUMANN: I'm going to take this opportunity  
4 of a certain silence to get the meeting started. Good  
5 morning, everybody. I'm Marty Baumann, PCAOB's Chief  
6 Auditor and Director of Professional Standards. It's my  
7 pleasure to welcome all of you here, both those here and  
8 on our webcast, to this special meeting of the PCAOB's  
9 Standing Advisory Group.

10 This meeting was not on the year's original plan  
11 for meetings of the SAG and was organized only relatively  
12 recently. Having said that, we're really delighted with  
13 the turnout and the willingness of SAG members and  
14 panelists that we've invited and other observers to  
15 adjust your calendars and be here today. So for us,  
16 we're delighted that so many of you are willing to  
17 participate in what we hope is a very valuable meeting  
18 and very informative meeting on this most important  
19 topic.

20 As you know, we benefit greatly at the PCAOB from  
21 the advice we get from the Standing Advisory Group on all  
22 of our various different issues and matters of standard

1 setting. And we look forward to these meetings and the  
2 contributions that we receive.

3       As I'm starting to talk, one of the things I  
4 should mention early on is our standard disclaimer. The  
5 views expressed today by each of the panelists and  
6 presenters during today's meetings are their own personal  
7 views and are not necessarily those of the PCAOB, members  
8 of the Board, or the PCAOB staff. And those include  
9 views of the staff. Our own views are not necessarily  
10 the views of the Board or the organization.

11       Today's meeting is a bit unique compared to some  
12 of our previous SAG meetings where we've covered a  
13 variety of topics. Today, we're really focused on one  
14 topic, one topic but one very important topic, and that  
15 is the Staff Consultation Paper issued on August 19th  
16 pertaining to auditing accounting estimates, including  
17 fair value measurements. When you look at a set of  
18 financial statements, it really boils down to a bunch of  
19 accounting estimates and fair value measurements, so this  
20 is really an important area of accounting and auditing  
21 that needs the focus of our attention in making sure we  
22 get this right in standard setting.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           We've distributed the agenda, along with a copy  
2 of the consultation paper, in advance of the meeting.  
3 But these items are also included in the folder in front  
4 of you. Hopefully, you've also all had a chance to read  
5 the paper.

6           Also, in your folders in front of you are  
7 biographies for all of the participants, SAG members, and  
8 panelists, and a seating chart to help you navigate and  
9 locate people around this intimate table. For those  
10 viewing via the PCAOB website, the agenda and Staff  
11 Consultation Paper are both available on the website.

12           The consultation paper solicits public comment on  
13 a number of issues relating to auditing, accounting  
14 estimates, and fair value measurements. We strongly  
15 encourage everyone to submit a comment letter by the  
16 November 3rd comment deadline in response to the specific  
17 questions or in response to any other matter that  
18 commenters feel they want to raise in such a letter.

19           However, we also wanted to hold this meeting to  
20 explore deeply the matters raised in the paper and engage  
21 in a meaningful dialogue with this group on the need for  
22 standard setting in this area, any new audit practices

1 that might be evolving around auditing estimates and fair  
2 value measurements and a possible standard-setting  
3 approach to respond to the need identified in the paper.

4         In developing responses to the paper, hopefully  
5 commenters can take into account the various views  
6 expressed around this table today to further inform their  
7 thinking on the comments.

8         So to that end, we've organized a structured  
9 meeting today with several panels, as noted on your  
10 agenda. Panels are led by your SAG colleagues and other  
11 distinguished guests, and these panels will delve deeply  
12 into various different topics all relevant to the  
13 auditing estimates and fair value measures. The panels  
14 will address these issues from different perspectives,  
15 but each of these perspectives should inform us about  
16 auditing estimates and fair values and further our  
17 thinking about a possible new auditing standard.

18         Now, this is important. As always,  
19 notwithstanding the panel structure, we encourage SAG  
20 members throughout the meeting at any time, including  
21 during panelist presentations, to raise your tent card  
22 on its edge and we'll make sure that we call on you and

1 get to your comments. So this is not about just hearing  
2 presentations from the panels. It's a regular SAG  
3 meeting. We want to make sure that SAG members have  
4 input into the conversation at any time throughout the  
5 day.

6       As many of you know, we've had this project on  
7 our agenda for some time to consider recommending that  
8 the Board replace or amend the existing standards on  
9 auditing accounting estimates and fair value  
10 measurements. During that time, the staff has issued  
11 guidance on several occasions. We've performed research  
12 and conducted outreach to inform the project,  
13 particularly with respect to the use of third parties in  
14 determining fair value measurements. Many of you  
15 participated in the pricing sources task force.

16       However, before recommending to the Board a  
17 specific standard-setting proposal, we're conducting this  
18 additional outreach through the Staff Consultation Paper  
19 and this meeting to obtain information and views beyond  
20 what we've learned from our earlier outreach or from the  
21 Board's oversight activities. The outreach conducted  
22 through the Staff Consultation Paper, including



1 discussions at this meeting and comment letters we  
2 receive, should be invaluable in informing a potential  
3 proposal of a new auditing standard.

4       As I said earlier, I hope everyone has had the  
5 opportunity to read the consultation paper. At the same  
6 time, I thought a high-level overview of some of its key  
7 concepts could be useful to everyone here in setting the  
8 stage for the discussions.

9       So in that regard, let me make brief comments.  
10 In thinking about potential revisions to our standards,  
11 we've analyzed and continue to analyze a number of  
12 alternatives. The alternative the staff is currently  
13 presenting and discussing through the Staff Consultation  
14 Paper could replace, is a single auditing standard that  
15 could replace two existing standards entirely: AU 342,  
16 auditing accounting estimates; and AU 328, auditing fair  
17 value measures and disclosures; and replace certain or  
18 all of the requirements in a third standard: AU 332,  
19 auditing derivative instruments, hedging activities, and  
20 investments in securities. These standards were all  
21 written many years ago. As such, any new standard or  
22 requirements could be specifically structured to be

1 further aligned with the Board's risk assessment  
2 standards, auditing standard 8 through 15, which the  
3 Board adopted in 2010.

4       Let me say why, in my view, it's so meaningful to  
5 align any new standard with those risk assessment  
6 standards. AS 12, identifying and assessing risk to  
7 material misstatement, and AS 13, the auditors' responses  
8 to the risks of material misstatement describe the  
9 auditor's responsibility for identifying risks of  
10 material misstatement related to the reporting of  
11 estimates and fair values and require an appropriate  
12 audit response to address those risks, including  
13 significant risks.

14       AS 15 requires the auditor to obtain sufficient  
15 appropriate audit evidence to form a reasonable basis for  
16 the auditor's conclusions and sets forth procedures for  
17 obtaining audit evidence. The existing auditing  
18 standards that I mentioned could be replaced are not  
19 specifically aligned with the risk assessment standards  
20 because those existing standards were created long before  
21 the risk standards.

22       As such, any new standard on estimates and fair

1 values could first be closely linked to the risk  
2 assessment standards, which clearly direct the auditor  
3 to properly identify and address these risks; and then,  
4 second, set out further specific requirements unique to  
5 the risks around accounting estimates and fair value  
6 measures.

7         The Staff Consultation Paper sets out the  
8 specific possible requirements, which include, among  
9 others, possible tests of controls and substantive  
10 procedures. There's quite a focus on the substantive  
11 procedures in the Staff Consultation Paper. And among  
12 those substantive procedures addressed in the paper are  
13 the auditors' testing of the company's process in  
14 determining the estimate, which includes evaluating the  
15 methods and models used, including significant  
16 assumptions, or the auditor developing his or her own  
17 independent estimate.

18         I must point out that these two substantive  
19 procedures are in the existing standards today. But the  
20 Staff Consultation Paper explores possible improvements  
21 to them and addresses more specifically the role of  
22 specialists and evidence obtained from third-party

1 sources. Most importantly, the paper seeks comment on  
2 these procedures and asks are there alternative  
3 procedures for the auditors to apply that we haven't  
4 considered in this consultation paper?

5         So as I said earlier, you will hear various views  
6 relating to auditing estimates and fair values from  
7 various perspectives throughout the day. Toward the end  
8 of the day, Barbara Vanich, on my left, leading this  
9 project, will summarize key points made throughout the  
10 day and key issues in the paper not otherwise discussed.

11         We look forward to a robust dialogue with active  
12 participation from all that will contribute to our  
13 thinking in developing a new standard for auditing  
14 estimates and fair value measures, critical to aspects  
15 of mostly all audits.

16         So unless there are questions or comments at this  
17 particular time, I'd like to introduce our first panel.  
18 And I see that a card has gone up already, and that's  
19 Arnold Schilder from the, chair of the IAASB.

20         MR. SCHILDER: Thank you, Marty. As the IAASB's  
21 work in this area is mentioned in your paper, let me  
22 briefly update the SAG where we might be moving. We have

1 a long history with this subject matter, certainly the  
2 last ten years. And in 2007, the IAASB approved ISA 540,  
3 and it's mentioned in your paper, auditing accounting  
4 estimates, including fair value accounting estimates and  
5 related disclosures.

6       Actually, that was a combination of two older  
7 ISAs, one on estimates and the other one fair value  
8 measurements. So we also took an approach of let's have  
9 it all together.

10       That was 2007. Thereafter, we had to focus more  
11 clearly on financial instruments, and that culminated in  
12 the release of the so-called International Auditing  
13 Practice Note 1000, Special Considerations in Auditing  
14 Financial Instruments. That was 2011, and I know that  
15 Greg Fletcher of the PCAOB participated in its task force  
16 and reflect some potential enhancements to ISA 540,  
17 certainly in the area of pricing services.

18       But in light of our other priorities and also the  
19 upcoming project at the PCAOB will put us, at the moment,  
20 on hold. We now will start a new period of new studies  
21 and workplan, and so we've consulted on what we should  
22 do and what our priorities should be. And there

1 certainly will be a project particularly relating to  
2 financial institutions. That's an area of focus, of  
3 course, for financial regulators but also other  
4 respondents. So many have encouraged us to engage in  
5 such a project.

6       That project on financial institutions will  
7 basically have three parts, three components. One is  
8 banking industry issues, not only clarifying  
9 relationships between banking supervisors and the bank's  
10 external auditors but also to address issues of  
11 particular significance in the audits of banks or other  
12 depository or investment institutions.

13       Second, insurance industry issues, also areas  
14 closely related to this topic and we will take that  
15 onboard, as well. And then other 540 issues we will  
16 consider there, the issues relating to ISA 540 that we  
17 already would have identified as a result of work  
18 regarding financial institutions and also more broadly  
19 applicable to other entities. Such issues might include  
20 application of professional skepticism, so how auditors  
21 obtain evidence and challenge assumptions by management;  
22 work on accounting estimates and fair values that have

1 not been identified already as significant risks; fraud  
2 and, certainly, also the implications of the use of  
3 third-party pricing sources.

4         And that project, therefore, may result in  
5 amendments to ISA 540, other ISAs, and maybe a new IAPN,  
6 as well, practice note. And our first discussion in the  
7 Board may be Q1 next year.

8         Now, just listening to this, it's easy to see  
9 that there can be many areas of overlap between your  
10 project, as identified in your excellent Staff  
11 Consultation Paper, and our project, certainly a good  
12 example is the area of third-party sources of audit  
13 evidence. And, accordingly, the IAASB will be very  
14 interested in exploring possible cooperation with the  
15 PCAOB, and that can, of course, be done at various  
16 levels.

17         We have some positive experience with that on the  
18 auditor reporting project, and let me conclude with that,  
19 given also the previous interest in the SAG, how the  
20 IAASB was moving with audit reporting. I can report to  
21 you, and it has not so much yet become public, that two  
22 weeks ago the IAASB approved unanimously the new revised

1 audit reporting standards. And after the expected  
2 approval by our public interest oversight board in  
3 December, it will go public early next year and will  
4 become mandated for 2016 audits.

5       You talk about cooperation and dialogue, I have  
6 expressed our sincere thanks to the PCAOB for the very  
7 constructive collaboration. So with that in mind,  
8 certainly future collaboration in the area of 540  
9 accounting estimates, fair values, etcetera, will be  
10 great. And let me stop there. Thank you.

11       MR. BAUMANN: Arnold, thanks for those comments.  
12 They're very useful to know that the IAASB will be  
13 looking at some of the same issues that we're addressing  
14 in this paper. And I share Arnold's view that we did  
15 spend a lot of time together over the last couple of  
16 years talking about the potential changes to the audit  
17 reporting model, and we're happy to continue a dialogue  
18 in the area of auditing estimates and fair value. So  
19 thank you very much for that.

20       I don't see any other cards up at this point, so  
21 do we -- okay. So with that in mind, let's turn to the  
22 first panel which deals with PCAOB and global inspection



1 findings.

2           The Staff Consultation Paper notes that audit  
3 deficiencies in these areas have been noted not only  
4 through the PCAOB oversight activities but also by  
5 inspections conducted by other audit regulators around  
6 the world. Our first panel will discuss in a bit more  
7 detail PCAOB and global inspection findings in this area,  
8 as well as the results of the past two surveys by the  
9 International Forum of Independent Audit Regulators,  
10 IFIAR.

11           So our panelists to discuss inspections and  
12 inspection findings include Helen Munter, the Director  
13 of the PCAOB's Division of Registration and Inspections.  
14 Helen leads this division, which conducts regular  
15 periodic inspections of hundreds of registered public  
16 accounting firms located all over the world.

17           Joining her, we have two representatives of the  
18 Canadian Public Accountability Board, CPAB. Brian Hunt  
19 is the founding director and chief executive of CPAB and  
20 serves on the advisory council of IFIAR. Brian is also  
21 the chair of IFIAR's global public policy working group.

22           Next to Brian, we have Jeremy Justin. Jeremy is

1 a senior director and leads audit inspections of CPAB  
2 registered firms. He is also a member of IFIAR's  
3 standards coordinating working group.

4 Last but not least, we have Liza McAndrew Moberg  
5 who serves as a counsel to the Director of the PCAOB's  
6 Office of International Affairs. Liza also leads IFIAR's  
7 efforts for its annual global survey on audit inspection  
8 findings.

9 Helen?

10 MS. MUNTER: Great. Thank you, Marty. I think  
11 we are here today, the inspections results panel, perhaps  
12 to answer the question is there a problem. And based on,  
13 you know, ten years of doing inspections, we've had the  
14 opportunity to look a lot at audit work done around fair  
15 value and around estimates. Clearly, these areas are  
16 complex, and significant management judgment has gone  
17 into them. They involve uncertainty and great ranges of  
18 possibilities. They're also, generally, areas with very  
19 big balances, accounts that are very material to the  
20 issuers' financial statements and accounts where we, in  
21 general, see that the auditor has devoted attention, the  
22 auditor has thought about how to address these specific

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 accounts and, yet, has stumbled. And we have had  
2 numerous findings in these areas.

3         We look at this account very, very frequently  
4 when we are doing inspections. Our inspections are risk-  
5 based, and so we tend to focus our attention on things  
6 like hard-to-value financial instruments, goodwill, long-  
7 lived assets. All of these accounts are subject to a  
8 very high frequency of inspection testing. And over the  
9 years, we've had findings. We've seen some improvements,  
10 but the findings do recur and we've really come to a  
11 point where, in spite of very, very significant remedial  
12 action on the part of many firms and some positive trends  
13 in terms of what we actually see auditors doing, we still  
14 come across auditors who are just missing it in a variety  
15 of different ways.

16         I wanted to highlight a few of the different  
17 areas that are pretty diverse in terms of the affected  
18 accounts. But I think it tells a lot about what is being  
19 done.

20         And the first area that I would highlight is with  
21 respect to hard-to-value financial instruments and, in  
22 particular, audit work done on Level 2 securities, where

1 we have seen auditors struggle in their testing of these  
2 securities, and their approaches might have been to take  
3 a look at what the pricing service provided to the  
4 issuer, compare that to the recorded balance and see that  
5 they were close, and say that was good. However, the  
6 auditor failed to understand the specific methods and  
7 assumptions that have been used by the issuers' pricing  
8 service in developing that fair value estimate; and,  
9 therefore, that work was found to be deficient.

10           We've also seen instances, again focused a lot on  
11 Level 2 securities, where the auditor engaged a different  
12 pricing service and perhaps multiple pricing services and  
13 got a range of prices. However, that range might have  
14 been very, very large, and the auditor selected a price  
15 that was close to the price that the issuer had used and  
16 said, okay, that's good. But the auditor failed to do  
17 anything with respect to the other prices that the  
18 auditor had obtained, failed to understand why those  
19 prices were so different than what the issuer had  
20 recorded, were so different from each other, and whether  
21 that was reasonable with respect to what was recorded in  
22 the accounts of the issuer. And, therefore, that work

1 was found to be deficient.

2           I think it's very interesting, in focusing on  
3 these hard-to-value financial instruments, that we have  
4 had -- I think the first years that we had this problem,  
5 it happened all the time, very high rate of occurrence.  
6 We have seen some improvements, definitely seen some  
7 improvements in this area, definitely seen much more  
8 effort to understand the specific methods and assumptions  
9 that a specialist uses in coming up to their, in coming  
10 up to their fair value.

11           Level 3 securities, which are inherently more  
12 difficult to value, the auditor, I think, tends to focus  
13 more time and attention on. But we still have problems  
14 in those areas, and I think a lot of the problems in  
15 those areas have to do with some of the inherent  
16 complexities of fair value.

17           Changing a little bit midstream here, accounts  
18 receivable and the allowance for doubtful accounts. It  
19 affects many, many, many operating companies, and this  
20 is an area where we have also seen problems. One of the  
21 problems that we've seen, and we've seen it occur with  
22 some frequency, is with respect to the testing done on

1 the general reserve. And we've seen where the auditor  
2 might focus their testing on a mechanical exercise of  
3 proving that the general reserve percentage applied to  
4 the aging buckets equates in a reserve balance that is  
5 close to what is recorded.

6         However, the auditor might have failed to test  
7 the accuracy of the aging itself. And the auditor might  
8 have failed to test the assumptions that went into those  
9 general reserve percentages, in spite of the fact that  
10 the general reserve was more than half of the total  
11 reserve and that the general reserve was very material  
12 in and of itself.

13         So this was really a situation, and we've seen it  
14 occur on more than one occasion, where the auditor is  
15 deferring to what management has done and some perhaps  
16 high-level view of this general reserve percentage is  
17 consistent and, therefore, good. But that is not enough.  
18 They need to understand and test that general reserve  
19 percentage, as well as test the accuracy of the  
20 underlying information used in the model that the issuer  
21 has to come up with this reserve percentage. And testing  
22 the underlying data that goes into some of these complex

1 calculations is a very important part of what the auditor  
2 does, and it ties in also with some of the testing of the  
3 computer-generated and IT type controls that are  
4 associated with it.

5 I think that having a healthy sense of  
6 professional skepticism is particularly important when  
7 it comes to audit work around the estimates. We have  
8 seen times where an auditor had, in their own work  
9 papers, evidence that was contradictory to some of the  
10 significant assumptions included in various estimates;  
11 and, yet, that evidence, although it was included in the  
12 work papers, was not linked to or considered in  
13 conjunction with the actual reserve balances or good will  
14 valuation that was recorded in the financial statements,  
15 and that has proven problematic.

16 We've also seen situations where auditors have  
17 collected information in order to support the estimate  
18 reported by management, rather than developing truly,  
19 their intention, what they set forth to do was to develop  
20 an independent estimate. But what they were actually  
21 doing was only considering information that was  
22 supportive of what was recorded by management. And that,

1 of course, was problematic.

2           And in the next category that I think links both  
3 professional skepticism and some lack of understanding  
4 with respect to what is required by the standards is  
5 where we might see, in particular in the complex areas,  
6 an auditor deferring to a specialist. And an auditor  
7 relying inappropriately on what a specialist has done  
8 with some idea that the specialist is well known and  
9 expert in an area; and, therefore, that assumption, which  
10 is critical to a significant estimate included in the  
11 financial statements, is okay, is good, and they're going  
12 forward with their testing.

13           So all of those things have contributed to a view  
14 that, you know, I think that there are real problems that  
15 we continue to identify in this area. We focused on root  
16 cause. We talked about that. I spoke about that a  
17 little bit at our last SAG meeting. And we've been  
18 focused on some of the times where we see auditors  
19 getting it right, and two of the things that really stand  
20 out are the sequencing of the work, the project  
21 management type aspects where an auditor, an audit team  
22 is doing the work at appropriate intervals in order to



1 be able to truly consider all the contrary evidence and  
2 assess whether they are gathering enough information to  
3 support their work and adequate supervision and review  
4 where there is active and early engagement by the partner  
5 in the work that is being done, appropriate coaching and  
6 mentoring going on with respect to the audit work being  
7 performed, in particular, in these very complex areas.

8           So, Jeremy, Brian, I think you guys have seen  
9 some similar type of things, and I know you're working  
10 on some other projects in this area. Let me turn it to  
11 you.

12           MR. HUNT: I'm going to turn it mostly to Jeremy,  
13 but this is clearly an area of great interest to us, both  
14 from an audit deficiency point of view from our  
15 inspections but also one of the things we've been working  
16 on in Canada is greater guidance around 540 in terms of  
17 how that standard needs to be implemented. We're working  
18 with the standard-setters in Canada and the profession  
19 to drive that forward.

20           So with that, Jeremy has worked extensively on  
21 this, and I think he's the best to speak to that. So  
22 it's a pleasure to be here, but I think Jeremy is our

1 man.

2 MR. JUSTIN: Thanks. And I think what we found  
3 very much echoes what Helen had talked about. We  
4 certainly look at audit estimates pretty frequently, and  
5 we look at the focus areas from our inspections,  
6 certainly the same areas that Helen had talked about  
7 around estimates related to fair value, estimates around  
8 impairment, good will, intangibles, certainly some areas  
9 that we see quite frequently. As we see more and more  
10 of the standards focusing more on fair values, we see a  
11 lot more in a revenue recognition perspective. Long-term  
12 contracts, fair values of multiple element arrangements.

13 So we're seeing it more and more. And as we  
14 focus more on it, I think we're certainly seeing a number  
15 of areas where the audit work has been done very well but  
16 also still seeing a lack of consistency across all the  
17 inspections we're looking at, as far as some audit teams  
18 that are still having challenge and still struggling in  
19 these areas.

20 So just to focus on a couple of the areas we're  
21 seeing. I think, certainly, professional skepticism is  
22 an area that Helen had talked about and it's across a

1 number of the different standards we look at and is  
2 certainly a key area around evaluating conflicting  
3 evidence, making sure that the auditor is not just  
4 looking for information that supports what the management  
5 has done but also having a dependent view.

6       The work as specialists, we've certainly seen  
7 that where the firm is using valuers. Usually, it's  
8 an evaluator perspective. And I think we certainly see  
9 challenges sometimes in coordinating the work between the  
10 audit engagement team and the specialist. A common area  
11 that we certainly see is evaluating the data, the  
12 information. I think the specialist evaluators do a good  
13 job in evaluating the models, making sure the model is  
14 an appropriate model. And some of the assumptions,  
15 usually the discount rates but we certainly see  
16 challenges sometimes in the other information, it's a  
17 little more difficult to evaluate the future growth rates  
18 where the cash flows. In some of these impairment  
19 models, that, in a lot of cases, neither the evaluator  
20 or the specialist or the engagement team is really  
21 focused on. So I think it's sometimes areas that kind  
22 of fall through the cracks, and I think that's an area

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 from more of an application perspective that teams are  
2 having challenges with.

3         As Brian indicated, in Canada, since 2010, we've  
4 applied the international auditing standards, so ISA 540  
5 is an area that we're inspecting against in the vast  
6 majority of our inspections. And as I said, we've seen  
7 a lot of good examples but also some examples where  
8 there's challenges in applying 540. And we've been  
9 working with the Canadian standard-setter and providing  
10 our comments around areas where we've seen challenges but  
11 also working directly with Arnold and his team around  
12 providing input both from the Canadian perspective but  
13 also through the IFIAR working group to try and get  
14 comments around areas we think things can improve in that  
15 standard.

16         So the areas that we've kind of focused on are  
17 kind of three main areas. The first one, obvious  
18 professional skepticism around the evaluating evidence,  
19 contradictory evidence specifically. The next one is an  
20 area that Marty talked about was understanding  
21 management's process and management's key assumptions.  
22 I think we certainly see challenges still with audit

1 teams not getting a deeper understanding around how  
2 management is making their estimates, and I think it's  
3 an area that we think there could be some assistance,  
4 more application guidance that auditors can use to help  
5 them to evaluate management's processes and their key  
6 assumptions.

7           And the last one is also around the area around  
8 significant risks. ISA 540 has specific additional  
9 requirements around, if something is considered a  
10 significant risk,

11           there's additional work that needs to be done.  
12 And I think it's very useful to have those procedures  
13 done, but I think we still seem to have auditors  
14 challenged with determining when an estimate is a  
15 significant risk, when is there significant estimation  
16 uncertainty that leads to a significant risk. So I think  
17 we have encouraged to have more guidance out there to  
18 help auditors evaluate when something is a significant  
19 risk or not, and that helps to drive what procedures,  
20 from a risk assessment perspective, in driving all the  
21 procedures that they're performing. So I think that's  
22 an area that we certainly think needs some improvement.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           With that, I'll turn it over to Liza.

2           MR. BAUMANN:   Before you do, keeping with my  
3 promise to acknowledge cards that come up at any time,  
4 I just wanted to check with Kevin and Kevin Reilly and  
5 Bob Guido.   Did you want to express your comments now,  
6 or did you want to wait until Liza is finished?

7           MR. REILLY:   Now is fine.   I'll shoot now.   Maybe  
8 a question for Helen and just maybe a naive thought on  
9 cause and effect.   But, obviously, there are challenges  
10 in inspection activities.   I've seen both PCAOB results,  
11 as well as the IFIAR accumulation.   But do you think  
12 there's something fundamentally wrong with the existing  
13 standards that, if those issues were addressed,  
14 inspection results would improve?   I'm just a little,  
15 it's not really seeing the link between what the SAG is  
16 charged with looking at today and commenting on by the  
17 November 3rd date in terms of the expectation of  
18 improving the standards, changing the standards, and what  
19 effect that might have on inspection results.

20          MS. MUNTER:   I think I would link to something  
21 that Marty said, which was wanting to link a new standard  
22 to our risk assessment standards.   And I think that that

1 is very important and would represent an improvement that  
2 could drive an improvement in result in a higher-quality  
3 audit.

4 I also think that, at times, there is confusion  
5 on the part of the auditor as to which standard they are  
6 choosing to follow and trying to apply, and that  
7 confusion that we see out there is another factor that  
8 makes me think that this project could have a very, very  
9 positive impact.

10 MR. BAUMANN: Just one further thought, in terms  
11 of its response to your question, which is a very good  
12 one, Kevin, and one we're certainly thinking through to  
13 make sure that standard-setting can help improve auditor  
14 performance here. One of the things I heard from both  
15 Helen and Jeremy was too often auditors, finding a piece  
16 of evidence that supports what management has as its  
17 estimate but not sufficiently thinking about or  
18 addressing potential other evidence that might be  
19 contrary to have the auditor explore further, is  
20 management's estimate truly reasonable or is there  
21 another number that is a better estimate? And it sounds  
22 like maybe standards could more clearly direct the

1 auditor to focus on contrary evidence, as well as  
2 evidence that merely identifies or supports what  
3 management has presented. So that's just one thought of  
4 what I heard in terms of accepting one piece when other  
5 pieces might be out there.

6           MR. GUIDO: Thanks, Marty. You know, I was kind  
7 of reflecting, as Helen and the team went through some  
8 of these observations, what's changed? I mean, we've  
9 been auditing, I've been auditing in my old life since  
10 the 60s. What's changed in these findings? And the only  
11 thing I noted that was new that I jotted down was I'm not  
12 sure in the 60s and 70s we called it Level 2 and 3 on  
13 fair value of instruments, so that's the only thing that  
14 I noticed that changed.

15           But, seriously, I was wondering what are we  
16 attacking here? Are we attacking a problem with the  
17 existing standards, or are we attacking a design flaw  
18 within the firm's methodologies, or are we attacking the  
19 execution of those methodologies? And that's what I'm  
20 struggling with right now is to what is really the root  
21 cause here of these findings? Because these findings  
22 have been here forever, and I'm very disappointed when



1 I hear professional skepticism because that's embedded  
2 in what we do every day or we should be doing.

3           So, you know, is it the educational programs, is  
4 it the design of the methodologies that we need to -- or  
5 is it we need to re-focus the execution of those  
6 methodologies?

7           MS. MUNTER: You know, I think that firms have  
8 taken significant remedial actions and have shown  
9 improvement in these areas. But that improvement isn't  
10 consistent, isn't across the board, and hasn't been able  
11 to impact every engagement team, and every firm  
12 certainly, at this point. And in my view, that fact is  
13 what drives a lot of support for this in terms of a  
14 standard-setting initiative.

15           You know, there's been increased guidance.  
16 There's been better templates to use. There's some good  
17 hand-holding that is going on. And, yet, not everyone  
18 gets it. And that fact I think makes us say don't we  
19 need to do something more? Don't we need to make a more  
20 fundamental change, rather than continuing to reinforce  
21 guidance, continuing to have trainings. As remedial  
22 actions, those have been effective in driving some

1 improvements, and those are the kinds of things, some of  
2 the things that we have seen quite a bit of in, you know,  
3 assessing a firm's remedial action in the 12-month period  
4 following their inspection report.

5 But you reach a point where doing that again  
6 isn't going to work. And I think, you know, in some  
7 cases, we've reached that point.

8 MR. BAUMANN: Brian Croteau?

9 MR. CROTEAU: Thanks, Marty. And good morning.  
10 Let me start just by providing my standard that the views  
11 are always my own and not as commission or other staff.  
12 And with 60 people here, I'll try not to say too much  
13 today and listen. But I thought I would just comment now  
14 on a couple of things.

15 One, certainly there is a range of performance in  
16 what we see today as a recipient of PCAOB inspection  
17 reports also through our own activities relative to the  
18 involvement we have in our own enforcement  
19 investigations. It probably should go without saying,  
20 but our current chair, as well as multiple prior chair  
21 and multiple commissioners, have pointed this out as an  
22 area where they'd like to see the PCAOB, over many years

1 now, make some progress in updating standards. I'm  
2 really happy to see a starting today with the discussion  
3 of the inspection results. I think that's an important  
4 place to start. It's probably a good time to also  
5 congratulate Helen and the PCAOB for the great work  
6 they've done to do something new in the inspection  
7 reports.

8           If you haven't seen it in some of the large firm  
9 reports that have come out, there's a specific appendix  
10 that references specific aspects of standards that  
11 haven't been complied with for every single finding.  
12 And, certainly, before I came today, I analyzed that  
13 relative to which paragraphs of the standards aren't  
14 being complied with. And as we think about the issues  
15 that have been raised today, I can't help but already  
16 here some of the comments and think that an important  
17 place to start is understanding what are the root causes  
18 of non-compliance with some of those paragraphs of the  
19 standards. And that may sound like it's in the weeds,  
20 but if we're really going to solve problems here, I think  
21 that's a place to start because I don't think there's one  
22 root cause. I think there are multiple root causes, and

1 it varies depending on a particular engagement. And from  
2 what we can see so far, I think that's the case. I can  
3 probably rattle off a few but will let others talk about  
4 that today.

5 I certainly encourage the PCAOB, in their efforts  
6 relative to drilling into the aspects of the standards  
7 that aren't being complied with and then thinking about  
8 the root causes, and the firms have an important role to  
9 play relative to that, as well.

10 I know that IFIAR, Lew Ferguson, Board Member  
11 Ferguson who chairs IFIAR and Brian Hunt who's involved  
12 has done a lot of great work, which Liza is, I think,  
13 about to talk about, relative to the inspection findings.  
14 And Liza has done a lot of the work, as well. Improving  
15 the taxonomy there is going to be an important thing to  
16 do as time goes on, as we try to aggregate findings  
17 around the world and think about what are the causes.  
18 But it's encouraging to see the discussion, from my  
19 perspective, start with the inspection results today and  
20 have a robust dialogue around what kinds of things can  
21 be done to improve the standards. And it is at least my  
22 personal hope that we'll make some real progress in the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 very short term on this effort.

2 MR. BAUMANN: Thanks, Brian. Before I get to the  
3 other cards, since Brian mentioned Liza, maybe, Liza, you  
4 could just briefly summarize and maybe probably put an  
5 exclamation point, I guess, on some of the comments  
6 already made. But why don't you do that, and we'll take  
7 the other cards that I see up. Bill Platt, Philip  
8 Johnson, and then Sri Ramamoorti.

9 MS. MOBERG: Absolutely. Thanks, Marty. And  
10 I'll try to keep it short because it looks like there is  
11 much interest in starting the conversation. I guess  
12 maybe I'll start with the punch line. The punch line is  
13 that, as Marty said at the beginning and as was included  
14 in the staff consultation, this truly is something that  
15 is seen globally by audit inspectors. It's not just in  
16 the U.S. It's not just in Canada.

17 And how do I conclude that? Well, at IFIAR --  
18 IFIAR is the International Forum of Independent Audit  
19 Regulators. It's currently chaired by Lew Ferguson,  
20 PCAOB board member. They conducted a survey which  
21 indicated just that.

22 In order to be a member of IFIAR -- we have 50

1 members. They cover the globe. Not all 50 of our  
2 members but members covering the globe contribute to our  
3 survey.

4 Back in 2012, the Financial Stability Board,  
5 which was taking a keen interest in some of the  
6 complexities of bank audits, challenges presented in the  
7 financial crisis in bank audits, asked IFIAR if they  
8 would explain a bit more what the challenges are that we,  
9 as audit regulators, are seeing from the audits. THE  
10 FSB's interest continues in this and, in fact, I think,  
11 going forward, we will, their most recent press release  
12 indicates that we'll keep talking about accounting for  
13 financial instruments and, especially as new standards  
14 roll out on loan loss provisioning, with a lot more area  
15 of judgment, a lot more fair value measurement. This  
16 conversation isn't coming to an end any time soon.  
17

18 So the response to the FSB inquiry in 2014 was to  
19 do this survey of all of IFIAR members not just on  
20 financial institutions but on all aspects of audit. And  
21 I'll quickly summarize the result of our most recent  
22 survey. Our second survey was published in April of this

1 past year. It was on 2013 inspection findings. You can  
2 find it online at ifiar.org.

3         Thirty of our members, again globally,  
4 contributed to our study. And what we found was the  
5 most, the area -- we had 16 different areas that, based  
6 on our collective experience, were most frequently cited  
7 in inspection reports. Of those 16 categories, the one  
8 that had the highest number of findings was, indeed, fair  
9 value measurement. Two places down from that, you have  
10 revenue recognition, which is another area, obviously,  
11 with a lot of judgment involved. So our survey actually  
12 covered 989 public company audits conducted on audits of  
13 113 firms so quite expansive.

14         Interestingly, in the category of financial  
15 institutions, the area with the highest level of findings  
16 was the audit of the allowance of loan losses and loan  
17 impairments. The third highest was valuation of  
18 investments and securities. And the fourth highest was  
19 insufficient challenge and testing of management's  
20 judgments and estimates. So all very relevant to the  
21 conversation we're having today.

22         There are limitations to the survey. The survey

1 certainly is not an end on to itself. It doesn't tell  
2 us that audit quality has gone up, down, or sideways.  
3 What it does is it helps us identify what are audit  
4 regulators seeing around the world and are we having the  
5 right conversations nationally and together collectively  
6 with the firms on these areas?

7       A couple of times Brian's working group, the GPPC  
8 working group of IFIAR, has been mentioned. We are  
9 trying to align what we're doing in the survey with what  
10 Brian and his team are talking to the largest firms about  
11 about their internal inspection findings. We're trying  
12 to go to a deeper level of granularity because, of  
13 course, all fair value measurement findings are not the  
14 same. So we're trying to understand more, getting to the  
15 root cause points that were mentioned, what types of fair  
16 value measurement problems are we finding, what are the  
17 root causes, and what needs to be done.

18       So, again, if I were to reiterate, while the  
19 survey is not an end on to itself, it is actually a good  
20 point of reference to tell us what we need to be focusing  
21 on. And from the results to date, it's clearly  
22 indicating that fair value measurement is up there.



1           We are currently in the process of conducting our  
2 2014 survey, and we hope to have that improved and  
3 refined and informative next year. Helen?

4           MR. BAUMANN: Thanks very much, Liza. Bill  
5 Platt?

6           MR. PLATT: Thank you, Marty. And let me  
7 apologize in advance if some of what I say at least picks  
8 up on themes that we've already heard in some of the  
9 discussion around this topic. But first I would say that  
10 I think the panelists, Helen, Jeremy, and Liza, have done  
11 an excellent job at summarizing a very complex topic and  
12 done a good job of laying out, you know, really the key  
13 issues you're seeing from an inspection perspective in  
14 the U.S., Canada, and then globally.

15           I want to follow up on, though, the causal  
16 factors or the root cause. And sort of, as I heard,  
17 Helen, you talking, and Jeremy, you know, three items  
18 sort of came top of mind to me as you went through that.  
19 Professional skepticism; project management, which dealt  
20 also with the sequencing of procedures; and then, lastly,  
21 supervision of review, I think you indicated were the  
22 causal factors of high quality in this area as you looked

1 at it.

2           So as we look at that and we think about if you  
3 were going to then drive solutions that improve in those  
4 three areas, rather than just a particular deficiency in  
5 a particular estimate. And the other interesting part  
6 is estimates are, there's a wide range of different types  
7 of estimates. As you've noted, they're very complex.  
8 There's probably not a one-size-fits-all solution. You  
9 can't audit an allowance for loan loss the same way that  
10 you would audit a fair value measurement, a Level 3 fair  
11 value measurement. So there's some to this that's going  
12 to be judgment and art as you design appropriate audit  
13 procedures.

14           But I'd just be interested is am I missing  
15 something, or is there more to kind of the causal factor  
16 analysis? And then how would we best design standards  
17 that would address causal factors instead of the  
18 manifestation of the problem that they cause, which is  
19 deficiencies in this area?

20           MS. MUNTER: When I was talking about the things  
21 that we have seen in terms of what drives high-quality  
22 audit work, that conversation is at a pretty high level:

1 project management, supervision in review, good  
2 involvement of the partner, sort of some of the  
3 intangible characteristics -- well, project management  
4 is pretty tangible -- that apply to a particular  
5 engagement team and drive the work that is done  
6 throughout the accounts. And I think, as we are looking  
7 at this problem, it's going to be focused at a much,  
8 much, much more detailed level of what specifically was  
9 able to drive a team to do good work with respect to a  
10 significant estimate. And that is work that is in  
11 process at many firms. That's work that is in process  
12 for us.

13         It's extremely complex to get to that. And I  
14 think it's extremely complex to get to that at the level  
15 of a specific audit standard, a specific, as Brian  
16 pointed out, paragraph of an audit standard. And that's  
17 the way we are looking at our findings.

18         So there's quite a bit more work to be done, but  
19 I do think that looking at the causal factors and where  
20 we have had deficiencies will progress. And I think  
21 firms are driving that progression at that paragraph-  
22 level of specific findings because that can be very

1 actionable in the short term, and that, of course, is  
2 necessary from a remedial perspective, certainly given  
3 our regulatory relationship.

4           MR. PLATT: Thank you, Helen. And I'm glad to  
5 hear that, in order to really develop a standard in this  
6 area, more work is needed and more insight. And I think  
7 that I would encourage the staff and the firms to  
8 continue to work on that to improve this project as it  
9 goes forward.

10           MR. BAUMANN: And, Bill, we look forward to your  
11 comment letter to lay out your thoughts. You've sort of  
12 summarized some but lay out other thoughts in terms of  
13 our potential standard in this area that we'd certainly  
14 like to issue. Philip?

15           MR. JOHNSON: Thank you, Marty. It's a  
16 reflection on what has been said, and other people have  
17 touched on it. I'll make an overall comment to start off  
18 with. I am supportive of bringing things, the standard  
19 into one standard. I think it is important. There's no  
20 doubt that a lot of the findings are failures to apply  
21 or fully understand the requirements of the current  
22 standards. But I think the world has gotten more complex

1 over the ten years that the existing standard has been  
2 in place, and I think it's useful to refresh the  
3 standards.

4       As Arnold mentioned about ISA 540, it was issued  
5 in 2007, and it's now being looked at again. I think in  
6 this complex world, looking at complex situations and  
7 probably some of the largest balances, as Helen  
8 mentioned, in the financial statements, we should do  
9 that. And I think it will focus the mind more by  
10 bringing it into one standard.

11       With regard to the inspection findings, some of  
12 the comments were made, not challenging management, not  
13 challenging management process and key assumptions, I did  
14 actually do a word check on the paper, and I didn't find  
15 challenging management in the paper. There was a lot of  
16 focus on third-party evidence, the use of experts. But  
17 it was silent on challenging management, and I think  
18 that, you know, we've had the words of professional  
19 skepticism. I think it is so important that the auditor  
20 does actually exert that skepticism and does challenge  
21 management.

22       It might be my computer that has not picked up

1 the words, but I hope that, going forward, it is very  
2 high in focus with regard to any potential new standard  
3 because, ultimately, that is where the main focus should  
4 always be.

5 MS. VANICH: If I could just respond briefly. I  
6 mean, I think that was an excellent comment and, as part  
7 of the team that drafted the paper, certainly interested  
8 in others' views. I would say that that word  
9 "professional skepticism" or "challenging management,"  
10 whichever way you choose to refer to it, is something  
11 that we would view as inherent throughout the auditing  
12 standards and the basis for the audit. So point taken,  
13 but I think that would be why it wasn't referred to more  
14 directly in the paper.

15 MR. JOHNSON: I understand that. I was really  
16 reflecting on what Helen was saying and also Jeremy, that  
17 it's coming out as a theme. So if the auditors aren't  
18 getting it, then they really do need to have a -- and I'm  
19 a former auditor, so I think we need to spell it out if  
20 it's not being addressed, and that's coming out as some  
21 of the key findings.

22 MR. BAUMANN: Yes, I share Barbara's point that

1 I think a couple of you brought out that point. It's  
2 maybe that estimates and fair value measures are so  
3 challenging that, even though some of these concepts are  
4 rooted in the fundamentals of auditing standards, they  
5 need to be restated and emphasized in a fair value  
6 estimates paper of the importance of challenging  
7 management, the importance of skepticism in these  
8 particular areas. So maybe it's really putting that  
9 front and center in front of everybody in our standards  
10 and firm our methodologies in these critical areas.

11 I want to take the tent cards that are up. And  
12 then we want to get to the next panel, and we'll continue  
13 the dialogue. But I know a lot of people had important  
14 messages they wanted to get out right away, and I think  
15 that's very valuable. So Sri Ramamoorti, Rick Murray,  
16 Wayne Kolins, and Harrison Greene, and then I'd like to  
17 move to the next panel.

18 MR. RAMAMOORTI: Marty, I want to pick up on an  
19 earlier comment you made which I think goes to the crux  
20 of the issue. There is now an established body of work  
21 in the psychology of judgment and decision making about  
22 what's called a confirmation bias. So human beings have

1 a tendency to look for confirming evidence. So auditors  
2 are no exception to that. I guess we all agree we are  
3 human beings first before we are auditors. So we show  
4 the tendency, and it actually can become very problematic  
5 because you even engage in selective perception. You  
6 look for what you want to see. And as a result, you have  
7 this tendency to look for confirming evidence, rather  
8 than disconfirming evidence. So that's just a natural  
9 thing for human beings.

10 But with respect to auditors, I guess we need to  
11 have some kind of intervention strategies to make them  
12 question what they're doing, and that's part of this  
13 whole, you know, professional skepticism conversation  
14 that we are having.

15 I'll make one more comment, which is language is  
16 extremely important in terms of standards. So a couple  
17 of thoughts here. One, we tend to say that auditors  
18 gather evidence to support their professional opinion on  
19 financial statements. Well, we used the word "support."  
20 We didn't use the word "challenge." So that's a  
21 linguistic matter. And we'll say auditors should look  
22 for misstatements in the financial statements. Well,



1 what about omissions? A misstatement by definition says  
2 just that it's a statement. But an omission is not in  
3 the statement.

4 So we need to worry about the use of language.  
5 And whenever these kind of words are used, maybe there  
6 should be a footnote that there is a converse to this  
7 which will, hopefully, highlight for the auditor that  
8 there is something else that maybe going on here that has  
9 to get attention.

10 MR. BAUMANN: Thanks for those very valuable  
11 comments. Rick Murray?

12 MR. MURRAY: Marty, in light of the time and the  
13 very good discussion that's going on, I'll defer until  
14 later.

15 MR. BAUMANN: Thanks, Rick. Wayne Kolins?

16 MR. KOLINS: Yes, I have a quick question for  
17 Helen. Helen, in the root cause analysis process that  
18 the inspections is going through now, are you also  
19 considering looking at engagements with positive findings  
20 for audits where the issue had complex financial  
21 instruments, for example?

22 MS. MUNTER: Yes, we have begun to do that. It

1 is on a -- we have begun that process. It's on a more  
2 limited basis, but we have and firms have.

3 MR. BAUMANN: Thanks, Wayne. Harrison Greene,  
4 you get the final word on this panel.

5 MR. GREENE: Similar to Brian, anything I say my  
6 agency will disavow, so they're strictly my thoughts.

7 MR. CROTEAU: I didn't exactly say that.

8 MR. GREENE: But I was wondering, Helen, if  
9 there's any correlation as you're doing your inspections  
10 between the quality of the underlying records, accounting  
11 records, at the clients and how that might impact audit  
12 quality. And is there a correlation in translating that  
13 to internal control over financial reporting the  
14 deficiencies that you might see from that?

15 MS. MUNTER: Well, the short answer is yes. Yes,  
16 and a strong correlation. I mean, it's a lot easier to  
17 do a good audit when management has done an excellent job  
18 of documenting their processes, documenting the risks,  
19 the flows, and they have a well-reasoned and very well-  
20 supported basis for what they've recorded in the first  
21 place.

22 That makes the auditor's job much easier. The

1 auditor knows that. The auditor understands that. And  
2 you can see that documented, I think, in the files. You  
3 can see that documented in the client acceptance and  
4 retention process that the firms go through, you know,  
5 every year with respect to their clients.

6         So, yes, the issuer plays an important role. But  
7 the strengths of the issuer, I would say, is not  
8 determinative of the quality of the audit work that is  
9 done. At times, you know, there could be a tendency to  
10 say the issuer is so great at this, you know. The issuer  
11 has all of these extremely high-qualified, high-quality  
12 individuals who are doing the preparation of the  
13 accounts, so I don't need to do much work because they're  
14 much smarter, et cetera. So high quality in financial  
15 reporting is fundamental.

16         MR. BAUMANN: And I think that's, we talked  
17 earlier about the current standards not being linked to  
18 the risk assessment standards, and a future standard,  
19 Harrison, would be linked to them, could be linked to  
20 them, and that's an important aspect of risk assessment:  
21 the quality of the financial reporting, the valuation  
22 group at a particular company and the controls there in

1 assessing those risks, the extent to which the company  
2 itself challenges complex estimates and fair values. So  
3 those are important aspects of linking risk assessment  
4 into any auditing standard.

5         That was a great discussion by the first panel.  
6 Thank you very much. And, SAG members, thanks very much  
7 for your valuable contributions which is a great start.  
8 And that will continue throughout the day, but I'd like  
9 to turn to the next panel on investor perspectives and  
10 related considerations.

11         This is an area, of course, very important to  
12 investors, obviously. As we've all mentioned, fair value  
13 measurements and accounting estimates are dominant in  
14 their importance in any set of financial statements.

15         So on this panel, we have Tom Selling, who is  
16 President of Grove Technologies and author of "The  
17 Accounting Onion" blog. Tom is a SAG member. He's also  
18 professor emeritus at Thunderbird School of Global  
19 Management.

20         Our next panelist then would be Sandra Peters.  
21 Sandy leads the financial reporting policy group at CFA  
22 Institute and serves as a spokesperson for the CFA

1 Institute to various financial reporting standard-setters  
2 and regulators. She's also a member of the IFRS  
3 interpretations committee.

4 And then rounding out the panel is Jeff Mahoney,  
5 who's also a SAG member and serves as general counsel for  
6 the Council of Institutional Investors. Jeff's  
7 responsible for developing and communicating the  
8 Council's public response to proposed regulations, rules,  
9 and standards that may affect the Council's members.

10 To start the discussion, we'll turn to Tom.

11 MR. SELLING: Good morning. And thank you,  
12 Marty. I appreciate the invitation to be on this panel  
13 for this very important discussion today. But before I  
14 begin with my planned remarks, I just want to quickly  
15 react to some of the great conversation that happened in  
16 the previous panel.

17 I, too, am happy to see that we started with  
18 inspection reports. That's a great place to start for  
19 setting the stage, and I think the panel did a great job.  
20 Also interesting to note, I think relevant to what I'll  
21 be saying, is that the highest number of findings was,  
22 indeed, in fair value measurement.

1           And a number of people have asked what's the  
2 problem that we're trying to solve? Is it with the  
3 existing standards, or is it in design flaws with the way  
4 in audit programs, with the way those standards are  
5 applied? It's going to be my contention today that there  
6 are longstanding auditing standards that are no longer  
7 suitable in the current financial reporting environment.

8           So with that in mind, I'd like to begin by  
9 sharing my perspective on investors' perspectives. The  
10 major challenge for regulators in dealing with  
11 differences between what investors say they want and what  
12 others think that investors should want is something to  
13 keep in mind. Both perspectives are important, and I've  
14 decided to assign myself the role of discussing today  
15 what investors should want.

16           But, fortunately, I don't need to say a lot about  
17 how someone thinks about what investors should want  
18 because the question that we're dealing with today is  
19 very specific, and, in my opinion, there's little  
20 controversy about the answer. The question is when a  
21 judgment is required to arrive at a number in a financial  
22 statement, how should investors want that judgment to be

1 made? And the answer is, I think, an investor should  
2 want the judgment to be made in an unbiased manner.

3         Now, before providing my thoughts on how that  
4 could be accomplished, I first want to share my  
5 perspective on challenges to auditing numbers that have  
6 a judgmental component. Going back to the 1930s when  
7 verification was the driver of audit quality and  
8 attesting to the reasonableness of estimates was less of  
9 a factor, the SEC concluded from its perhaps first  
10 investigation of auditors in the McKesson fraud that  
11 auditors needed to be explicitly told something that  
12 today we take as second nature, that it's not okay to  
13 issue an audit report without having examined inventory  
14 and receivables.

15         These were the beginnings of some of the  
16 fundamental rules of audit engagements. But today the  
17 balance between verification and attesting to the  
18 reasonableness of estimates has shifted dramatically, and  
19 I want to ask whether the evolution of those fundamental  
20 rules of audit engagements have been responsive to that  
21 shift.

22         Basically, AU 342.03 says that management is

1 responsible for the judgmental components of financial  
2 statement numbers and what management chooses to consider  
3 when forming those judgments is a matter of management  
4 judgment itself. This longstanding foundational rule,  
5 which, to the best of my knowledge, has no direct basis  
6 in the securities laws, may have worked well enough in  
7 the past, but perhaps this is what needs to be  
8 reexamined. Does it promote the unbiased judgments that  
9 investors should want, or does it hinder it?

10           Let me ask the question in a different way.  
11 Imagine that accounting professor X, and I'm sitting next  
12 to two other accounting professors over here. And I  
13 apologize in advance for using the pronoun "she" in my  
14 remarks.

15           Imagine that professor X permitted students to  
16 grade their own exams. In determining one's grade, the  
17 student may take into account its intention to learn the  
18 material better during the coming months while studying  
19 for the CPA exam. Professor X understands that she must  
20 reign in unreasonably high grades, but that's not as easy  
21 as it sounds. All of the students are giving themselves  
22 the benefit of the doubt, so to speak.



1 Under these rules of engagement, professor X  
2 certainly can't and does not wish to confront every  
3 student and remove the bias from every grade. Despite  
4 these obvious flaws, though, professor X must like her  
5 system. We know that because she's the one who wrote the  
6 rules into the course syllabus. Whatever the costs and  
7 whomever bears them, professor X has fewer confrontations  
8 with students over grades than any other professor, and  
9 the students think that she's really cool.

10 So here's my question. You are a future employer  
11 of professor X's students, and you're going to rely on  
12 those grades to identify her best students. Are you  
13 being well served by the rules of engagement for her  
14 class? What if the entire university system permitted  
15 students to grade their own exams?

16 My point is that AU Section 342.03, however it  
17 came into existence, from an investor perspective, looks  
18 like a standard created by auditors to benefit auditors.  
19 And management, like professor X's students, is happy to  
20 play along. But the system does a disservice to  
21 investors because it deprives them of unbiased judgments  
22 and even more so as accounting standards increase in

1 complexity.

2           To summarize, this section is a foundational rule  
3 of engagement and it is not conducive to unbiased  
4 judgments.       Even the most highly-qualified and  
5 intentioned auditors can be put between a rock and a hard  
6 place.   Consequently, the best that an auditor can do is  
7 subjectively evaluate for itself whether management has  
8 an appropriate or some would say reasonable basis for its  
9 estimate.   When the present doesn't look much like the  
10 past, this can be a big problem.

11           Personally, I found it most concerning that these  
12 rules of engagements enable inappropriate wealth  
13 transfers from investors to managers.   Investors should  
14 not be content with a system by which management is  
15 essentially permitted to grade its own exam.

16           Along these lines, I wanted to share this  
17 anecdote with you.   Please take a moment to read the  
18 slide.   Basically, as you're reading, let me just say  
19 that that's Walter Schuetze telling a story from his  
20 experience.   He's one of the original members of the  
21 FASB, a long-time KPMG partner, former SEC chief  
22 accountant.   And I think, as you read this story, it

1 indicates that he's one of the most plain-spoken  
2 individuals you'll ever meet.

3 MR. BAUMANN: By the way, if anybody is having  
4 trouble reading that up there, you should these in your  
5 folders, as well, just in case you didn't know that.

6 MR. SELLING: Oh, that's okay. And in terms of  
7 plainspokenness, what he said is earnings management is  
8 like dirt, it's everywhere. You should keep in mind that  
9 Walter grew up on a farm.

10 But his story is the most straightforward way I  
11 can think of to explain why we are discussing audits of  
12 estimates today and why we have come to the point where  
13 I believe a fundamental shift in approach is needed.

14 To this point, I hope I persuaded you, if you  
15 already didn't know, that AU 342.03 has some fundamental  
16 limitations. But for decades, policy makers have acted  
17 as if it could not be changed. But that presumption, I  
18 believe, now seems to be challenged, and that's what I  
19 would encourage the PCAOB and the SEC to do.

20 On this slide, slide eight, I have barely  
21 outlined the start of an iterative process to gradually  
22 change how estimates are built into financial statements.

1 We've already talked about Level 2 or 3 estimates today,  
2 and, initially, we could scope in only financial  
3 instruments for which Level 2 or 3 fair values are  
4 already being reported by large financial institutions.  
5 These financial institutions would engage independent  
6 appraisers to estimate the fair value of those financial  
7 instruments.

8         The auditor, however, would still have a very key  
9 role, but it would be engaged for this purpose only to  
10 verify certain facts. With respect to the work of the  
11 appraiser, auditors would verify that factual information  
12 provided by management to the appraiser is accurate and  
13 complete, that the appraiser met specific independent  
14 standards, that the appraiser performed the work in  
15 accordance with GAAP and in accordance with their  
16 engagement letter with the issuer, and that the  
17 appraiser's calculations were accurately made.

18         If only this first iteration were to be  
19 implemented, that would be substantial progress indeed.  
20 But I also want to look ahead to the logical end point:  
21 to purge financial statements of all judgment bias, most  
22 likely by replacing management's judgments with market-

1 based drivers of value to be estimated by independent  
2 experts. Let's see where that would lead us.

3         First, both auditing and U.S. GAAP would be much  
4 less complex, a goal I think we all share, and much less  
5 fraught with risk of restatement and litigation. Second,  
6 it would take auditing back to its roots, but it would  
7 also create new opportunities for audit firms. Since  
8 auditors will no longer have to second guess management  
9 in order to have a reasonable basis for its opinion, it  
10 should be possible to reconsider things like the degree  
11 to which non-audit services for clients are constrained.

12         Allow me to conclude with an acknowledgment and  
13 a caveat. I want to acknowledge first that a 2003 speech  
14 by Walter Schuetze to the New York State Society of CPAs  
15 touches on many of these topics that I've discussed  
16 today. For additional background and perspective, I  
17 encourage you to read that.

18         And, finally, the caveat. In my brief time, I've  
19 provided you with only the barest outline of a new path  
20 forward. We will not be able to resolve even a few of  
21 the questions that we all have regarding implementation  
22 and practicability, but that doesn't mean there aren't

1 solutions. I can't think of any good reasons why  
2 practical solutions would not exist and why financial  
3 reporting regulators would not want to look for them.  
4 Thank you.

5 MR. BAUMANN: Thanks, Tom, for those provocative  
6 thoughts. Sandy Peters.

7 MS. PETERS: Okay. I thought I would start my --  
8 oh, I need the clicker. Can you hear me? Okay.

9 I thought I'd start with a little bit of our  
10 perspective on why we think estimates are important and  
11 what we think are the challenges. I sort of had to pull  
12 myself back, having been a former auditor, from going  
13 into this in too great of detail because investors would  
14 be very challenged to look at auditing standards such as  
15 this and really understand what they do for them. So  
16 there's a little bit of a challenge in that. They  
17 understand what they ultimately want, but how this  
18 actually works I think is a challenge.

19 We care about auditing estimates and fair value  
20 because, the CFA Institute, our members are major  
21 consumers of estimates and fair value measurements. But  
22 we also care about it because we have members who sit

1 within the big four firms who are consultants who work  
2 as specialists to the audit engagement team. I've  
3 recently participated in some conversations amongst the  
4 firms and valuation organizations about how, in fact, we  
5 can improve valuation specialists in the quality of work  
6 and the identifying credentials associated with them to  
7 improve the work that's actually done by valuation  
8 specialists.

9           We have about 1500 members of our 123 members  
10 that sit within the firms. But also interesting as I  
11 went through this is that there are only about 500  
12 members of our organizations sitting within the firms  
13 globally that actually do the work of accounting and  
14 auditing, and that's, to my mind, a very small number who  
15 have valuation and analytical experience that we perceive  
16 might be necessary to do this sort of work.

17           I used to fit within that category. As I said,  
18 I was an audit partner. As my bio says, I was an audit  
19 partner. I was also a controller of an insurance  
20 company, and I audited insurance companies, so I was very  
21 familiar with estimates and hung around with a lot of  
22 actuaries who, as many of you may know, can estimate

1 anything. So I'm not certain to the point of someone  
2 else made of what's changed because we've been making in  
3 the insurance industry these estimates for a very long  
4 time.

5 I can recall during the financial crisis, the CFO  
6 at the time of the organization I worked for saying, "I  
7 don't know why these people are so exercised about Level  
8 3 assets. Have they looked on the liability side?  
9 They're all Level 3." And so I'm not certain what's  
10 changed, per se, because we've been doing this or we  
11 perceive there have been estimates in the financial  
12 statements for a long time. Certainly, some have  
13 changed, and I'll talk about those in a minute. But  
14 we're interested in it from a variety of perspectives.

15 Just here is a little bit about how we supported  
16 over time. Things have changed a bit in what's in some  
17 items have incorporated more estimates, and CFA  
18 Institute, as many of you know, is a big supporter of  
19 increasing uses of estimates and particularly fair value  
20 for the last 20 years. We've supported 115, 133, 128,  
21 changes in pension rules, et cetera, et cetera, because,  
22 as someone pointed out, the past doesn't look like the



1 future. And in making investment decisions, you care  
2 more about the future than the past, so we care about  
3 forward-looking estimates of value, not necessarily  
4 amortized cost estimates or verifying amortized costs,  
5 which is yesterday's perceptions of value.

6 But we're also, the challenge for investors in  
7 looking at estimates and fair value measurements in the  
8 financial statements is that there are very few  
9 disclosures associated with them. There are more than  
10 there have been in the past but very little information  
11 on the inputs and assumptions. Certainly, on fair value,  
12 there have been more over time. But on some of the  
13 others, it's still this is the number and some very  
14 generic language with respect to how, in fact, this  
15 estimate was arrived at. And that's challenging for  
16 investors who want to invoke some market discipline on  
17 these items.

18 But also challenging to investors, and what  
19 struck me as I read this proposal was, obviously  
20 challenging to auditors, is that there's such a variety  
21 of different estimates. Some joke that we have our  
22 favorite estimate, which is fair value. But when you

1 look at the financial statements, there's just so many  
2 different types of estimates that have been made, and  
3 there are compromises that have been negotiated over time  
4 in revenue recognition, in the impairment of financial  
5 instruments, as we see it playing out in the impairment  
6 of financial instruments and impairment of intangibles  
7 and long-life assets and, certainly, as we look at the  
8 insurance liabilities project.

9         So the challenge for investors is what do these  
10 estimates, what's actually behind them? They don't know  
11 the accounting rules. They know cash, and they know fair  
12 value, and what do these estimates actually mean? How  
13 are they derived? What do they mean economically?

14         But as I look at some of the auditing standards  
15 and some of the conversations, I sort of wonder if the  
16 audit challenge, at times, isn't what are we auditing and  
17 what do these numbers mean? And so how do we actually  
18 employ audit procedures that are meaningful when we don't  
19 know actually what this number can represent. So I  
20 think, as I read this, I think that investors and  
21 auditors might share some of those challenges.

22         Just in reading through the proposal, as I said

1 before, I found myself drawn to the details of the risk  
2 assessment versus the substantive procedures, and I tried  
3 to step away from the substantive procedures a little bit  
4 because I'm not certain, as I said at the beginning, that  
5 investors would necessarily know how those actually  
6 produce what they want at times. Certainly, some they  
7 would get, but how this proposal is changing things I  
8 think is a bit challenging. A shift's chart that shows  
9 how all this would be merged and what the significant  
10 changes would be and how they would address the root  
11 causes that investors hear about but they're not certain  
12 why they exist at times would be actually useful.

13           I know I looked at the IFIAR survey, and I  
14 certainly can see those categories. But I was left with  
15 and why did they happen? And in the PCAOB findings, I  
16 recall reading one finding, and it was about inventory  
17 being the same last period versus this period and nobody  
18 did anything to say, hey, maybe it's not impaired. But  
19 I think the standard, actually, would have covered that.  
20 I think some of it may have been in the execution of the  
21 standard.

22           So investors are interested in the root causes

1 in, you know, which many people have talked about here  
2 today already, which is do these things that you're  
3 adding fix the things that we keep hearing about? And  
4 I think for them to actually comment meaningfully on  
5 that, I think that that's something that they need. They  
6 need a bit of translation.

7       But as I talk with my committee about the  
8 proposal, I think everyone was in favor of an integration  
9 of the proposal, sort of addition without subtraction is  
10 I think how one person put it, because they thought that  
11 it might help integrate thinking about estimates and  
12 valuation more totally and more completely. I think  
13 someone said we don't know what standard we're in, and  
14 we view fair value as just one special case of estimate  
15 and we don't think that it should be -- a more integrated  
16 approach may be helpful in knowing how to audit them.

17       But also, as I step back from the proposal, I  
18 thought that, from an investor perspective, the two most  
19 important things to consider were a robust risk  
20 assessment and an understanding of the current economic  
21 context. And as I read the risk assessment standard and  
22 I looked at the changes in AS 12 and AS 13, I thought

1 that they were useful. But I did wonder if it is really  
2 about, as I said before, the execution as opposed to the  
3 particular standard.

4 I think, you know, having remembered myself as a  
5 younger audit partner, I had some very challenging first-  
6 year engagements with all of these sorts of issues.  
7 There was one particular engagement where just stepping  
8 back and understanding the pressures that management was  
9 under would have been more helpful to all of the audit  
10 procedures we were actually performing.

11 But I think also that sometimes I think auditors  
12 are so busy doing the work that there's a necessary  
13 aspect of sort of stepping back from things. I can  
14 recall somewhere between QE 1 and 2 and infinity, sitting  
15 with a bunch of insurance auditors and regulators and  
16 them talking about why insurance companies were trading  
17 at 60 percent of book value, and they didn't really  
18 understand that, and I was shocked by that because the  
19 knowledge of the low-interest rate environment should  
20 have been incorporated into all of the estimates and  
21 assumptions that were going into the financial statements  
22 at that time.

1           And so sort of that step back. The market was  
2 recognizing something maybe before the auditors and  
3 regulators were. And that's something that, certainly,  
4 when I look at AS 12, there's words, but I think  
5 translating those words and having the education and  
6 experience to translate that into practice is, you know,  
7 one of our perceptions with respect to a root cause.

8           Also, as I've been in this role for five years,  
9 one of the things I've recognized and come up against is  
10 that many times people don't understand why we're  
11 advocating for these valuations. Some people certainly  
12 understand why we want them, and they don't like them,  
13 and for good reason. Some people, though, don't really  
14 understand why we want them. And it occurred to us that  
15 maybe we should look at accounting education and how it's  
16 evolved over the last 20 years or where it sits today  
17 relative to the evolution of some of these standards that  
18 have incorporated more valuation concepts over the last  
19 20 years.

20           So we've undertaken a project over the summer to  
21 look at that. And given that valuation is one of the six  
22 audit assertions, and I can that it's only modestly

1 included, from what we can tell, in some of that  
2 education, which is concerning to us with it being one  
3 of the six audit assertions.

4         So, overall, we'll include our comments on the  
5 substantive procedures in our comment letter. To touch  
6 on something that Tom said and someone else said, you  
7 know, we think that you should start with management's  
8 estimate because they're supposed to be management's  
9 financial statements, and we want to see their cards.  
10 But we also believe that you should have an independent  
11 estimate. There is confirmatory bias. Certainly, that  
12 exists in the investment profession, as well, in looking  
13 for evidence that supports your valuation or your rating  
14 or whatever. And the auditors can do an independent  
15 estimate or the auditors should do an independent  
16 estimate is one of the questions we might ask.

17         As I said, we think there's commonality,  
18 sufficient commonality to merge. It's hard for us, as  
19 investor and investor group, to assess whether this is  
20 economically worthwhile because we need to know it's  
21 solving the problems, as investors are the people who  
22 will ultimately pay the bill. But, again, it's really,

1 for us, looking at the root causes. Is there sufficient  
2 translation of education and knowledge and experience of  
3 these auditing standards to what's actually getting  
4 applied?

5           You know, as I read through some of the things,  
6 as I said before, is this going to fix things, or is it  
7 really about people having the ability to take those and  
8 use them in the way and in the context that they need to  
9 be used?

10           Investors as a group, as we've said, as I'm  
11 certain my colleagues have said here before, want more  
12 disclosures about these estimates and they want auditors  
13 to tell them more about what they've done. And that's  
14 really about the fact that they don't have a lot of  
15 transparency over them.

16           So those are our thoughts on the importance of  
17 the standard.

18           MR. BAUMANN: Sandy, thanks for those comments.  
19 And I just want to ask you about one more thing. If I  
20 got this right, early on, you said something else that's  
21 not on this final slide, but you were pointing out the  
22 number of CFAs who are actually auditors. And I think



1 you were pointing out it's a relatively low number.

2           But it sounds like maybe what you're saying is we  
3 need to reinforce in our standards, in our quality  
4 control and other standards or maybe need to be enhanced  
5 in our standards that audit work, especially in these  
6 complex areas around fair values and complex estimates  
7 for product liability or allowance for doubtful accounts,  
8 but audit work should be assigned only to partners and  
9 staff who have the necessary experience and expertise to  
10 perform that audit work. And while that's a fundamental  
11 statement in the quality control standards, really  
12 emphasizing that, that maybe, in some of these areas, the  
13 people doing the work don't have the necessary experience  
14 and expertise to challenge some of these complex  
15 assumptions and models and methods that go into these  
16 calculations. And so maybe that's a more explicit  
17 requirement that's needed.

18           MS. PETERS: Yes. And I think also that they may  
19 not have the expertise to engage a specialist or evaluate  
20 the work of a specialist either because you can't really  
21 audit what you may not understand. And I don't mean that  
22 in a -- I mean, I can look back at my younger audit self

1 and say I wish I understood that better. But I think  
2 it's really hard to do the work if you don't understand  
3 valuation concepts, you don't understand how cash flows  
4 are derived, and you don't understand how discount rates,  
5 or you don't understand in doing the good will impairment  
6 tests the difference between a relative and a fundamental  
7 valuation approach. I think it's challenging.

8 MR. BAUMANN: So Tom put his card back up and  
9 then Steve Buller.

10 MR. SELLING: Just a quick comment in reaction to  
11 Sandy's remarks. I'm happy, more like ecstatic, to hear  
12 that CFA Institute thinks that estimates should be from  
13 independent sources. And I also hear and appreciate the  
14 comment that analysts want to hear from management. For  
15 me, that's the purpose of MD&A, to see the company  
16 through the eyes of management. We do have a financial  
17 reporting system that enables us to get both if we want  
18 both.

19 MR. BAUMANN: Thanks. Steve?

20 MR. BULLER: Thank you. I guess I'd just like  
21 some clarification on, you know, this thought experiment  
22 of an independent appraisal of all assets because,

1 obviously, companies want an efficient audit and quite  
2 often companies have information which may be pertinent  
3 in the evaluation process than you may be able to obtain  
4 from outside sources.

5         So in performing an independent appraisal or  
6 assessment, it seems to me that it still would require  
7 the use of information that management may have in order  
8 to ensure that you're considering all facts and  
9 potentially information which may be more accurate and  
10 relevant than you can get from third parties. I guess  
11 on extent to which you would consider management data and  
12 that process and also the extent to which in performing  
13 an independent assessment, that you would still rely upon  
14 understanding a company's internal controls and processes  
15 as part of determining where the risk is in that process  
16 and the extent to which you can rely upon management's  
17 determinations in making that independent estimate.

18         MS. PETERS: Is that for me or Tom? Okay. I  
19 mean, we do want to, we do think it's important to look  
20 at management's estimates. We just think -- and the  
21 internal controls and the processes. And, certainly, as  
22 you said, there are types of estimates where only

1 management will have certain information about their  
2 particular product or the like.

3           But we think that that should be supplemented by  
4 a very -- you know, we've used the term skepticism. But  
5 I might go a little bit further and say independence  
6 completely of mindset in how you do these. I mean, I  
7 think one of the comments I think Helen made was that  
8 people, you know, ticked and tied things that were there.  
9 But really stepping back and say is what's there makes  
10 sense, or, if you have different pricing services, why  
11 are they different, where are they sourcing this from,  
12 and trying to at least explain why there might be a  
13 difference. I mean, I just think an independence of mind  
14 but not saying that we should be completely devoid of  
15 what management has said. You know, if you talked to  
16 many investors, they want to know what management thinks  
17 because they believe management has more detailed  
18 information.

19           MR. SELLING:       There's no question that  
20 independent appraisers require the use of information  
21 that management has. But I envision that the information  
22 that management would provide to independent appraisers

1 would be fact based, would be factual, and that the  
2 estimates, therefore, that appraisers would make would  
3 be strictly market-based.

4       Earlier today, somebody observed, I think it was  
5 Bob Platt -- and I certainly don't want to put words in  
6 your mouth, Bob -- but you said that there was a  
7 fundamental difference between auditing fair values and  
8 auditing the allowance for doubtful accounts. And I  
9 agree with that. I would say that auditing the allowance  
10 for doubtful accounts, even though more fundamental, is  
11 actually harder because it incorporates management's  
12 future intentions.

13       Even if you didn't want to report a market-based  
14 measure of accounts receivable, like fair value, I still  
15 would prefer to see a market-based estimate of ADA, the  
16 allowance for doubtful accounts. And I think that's  
17 possible, and I think that's something someone that's  
18 independent of management could judge and do themselves,  
19 so long as they have fact-based information provided by  
20 the issuer.

21       MR. BAUMANN: Kevin Reilly?

22       MR. REILLY: Yes, thanks, Marty. Tom and Sandy,

1 you threw out this notion of independent appraisals, and  
2 I'll just give you the benefit of some of my experiences  
3 over the years. The big challenge is pushing back on  
4 appraisals I've seen that were not independent at all.

5 And so in your minds, who is it that would  
6 regulate these independent appraisals to make sure that  
7 what they're delivering, in fact, was independent, was  
8 objective, fact-based, and wasn't skewed towards the  
9 desires of the folks who had hired them to begin with?

10 MR. SELLING: A couple of quick observations. If  
11 you go back to the 1930s, I think there were similar --  
12 the McKesson case even illustrates that there were  
13 similar problems with the independence of auditors. The  
14 SEC had to tell auditors what independence means, and the  
15 auditors do a great job of complying with Article 2 of  
16 Regulation S-X.

17 I believe that a starting point -- I mentioned in  
18 my talk that I want the PCAOB and the SEC to look at this  
19 because I don't see this as being just siloed with the  
20 PCAOB. I think the SEC, as a starting point, would have  
21 to do something similar to Article 2 of Regulation S-X  
22 that describes what independent appraisers are.

1           Furthermore, I don't necessarily see that  
2 independent appraisers are non-audit firms. Many of them  
3 would be non-audit firms, but it could be that your firm  
4 is the auditor and Bob's firm is the independent  
5 appraiser. I don't have a problem with that. You guys  
6 know how to be independent on engagements.

7           MR. REILLY: I appreciate your suggestion here,  
8 but one of your suggestions is the appraiser, that the  
9 auditors are responsible for the appraiser meeting  
10 specific independence requirements. I know you know  
11 this, that independence, in many respects, is, in fact,  
12 a state of mind, and that is a critical component of the  
13 analysis. And just building this type of program into  
14 a standard without the full scale involvement of the SEC  
15 with a regulatory oversight committee in terms of what  
16 goes on from an independent appraisal and what  
17 constitutes an independent appraisal, I just don't think  
18 is being practical under the circumstances.

19           MR. SELLING: I guess I disagree. I think that  
20 it is something we could look forward to in the future.  
21 I forget his name. It escapes me right now. Former  
22 Arthur Andersen partner, former FASB member, and

1 University of Illinois professor. Art Wyatt. Thank you  
2 very much.

3         Art Wyatt 20 years ago said that auditing is a  
4 business, and he recognized that as a reality of  
5 practice. What that meant to me was, one of the things  
6 it meant to me is the best we can do as regulators is to  
7 regulate independence in fact, independence in  
8 appearance. Excuse me. Regulate independence in  
9 appearance. And we have to rely, to some extent, on  
10 reputation and other factors so that independence in fact  
11 will actually occur.

12         I don't see why that cannot occur within the  
13 appraisal profession as well as it has occurred in the  
14 audit profession.

15         MR. BAUMANN: Okay. I'd like to -- I appreciate  
16 that dialogue, but maybe we can move on to some other  
17 comments and questions outside of the moving the  
18 management responsibility elsewhere. I think we've  
19 covered that, I hope, and maybe get back to some of the  
20 issues on the auditing standard. Philip?

21         MR. JOHNSON: Thanks, Marty. It's really picking  
22 up on Sandra's last point and the last point on this



1 slide. I know we're here to talk about estimates and  
2 fair values and not audits and reporting. But from my  
3 experience in Europe, I think auditor reporting, changes  
4 in auditor reporting has actually, is actually closely  
5 linked with a change in auditor behavior. And what we're  
6 talking about here are estimates in fair value are key  
7 balances and key risks within the financial statements,  
8 and as auditors are being asked in Europe to provide more  
9 information as to what they have done, what their  
10 findings are, and how that impacts on the financial  
11 statements.

12 KPMG have just done a very good report on looking  
13 at the last 12 months of the behavioral change and the  
14 things that have been reported in the space of just one  
15 year and how that's changed and how that's changed  
16 behaviors. And they made auditors more challenging and  
17 more focused. Personally, as an audit committee chair,  
18 I've seen it in practice, and it does make a difference.  
19 And I think the two are linked when you're actually  
20 looking at these key risk areas.

21 MR. BAUMANN: Thanks. We feel that's an  
22 important area, as well, in addition to the, as Arnold

1 indicated, they've come out with an auditor reporting  
2 standard, and certainly the UK has had one in advance of  
3 that, and it's an active project of ours. I think your  
4 observation is a good one, as Sandy pointed out, too.

5 I think Loretta Cangialosi and then Bob Guido.  
6 And we do have to get to Jeff, so after those two  
7 comments we get to Jeff.

8 MS. CANGIALOSI: Okay. I'll try to be quick. I  
9 just want to come back a little bit on the notion of  
10 independent assessments being done by the auditors. And  
11 just to give you my experience, we actually have lots of  
12 intangibles that we've acquired, and we are required to  
13 do fair values and we're required to test those on a  
14 regular basis for impairment, which we do. And I can  
15 tell you that it is very complex. We do not do it  
16 ourselves. We actually do hire someone to do it. We  
17 actually do sign in a rep letter that we have not  
18 influenced that person in any way, you know, because it  
19 doesn't serve me to influence that person.

20 Frankly, the things that go in there are --  
21 remember that it was started out with the hypothetical  
22 market participant. So the hypothetical market

1 participant, in fact, doesn't have a bias if you've done  
2 it right. And you take that information and you come up  
3 with forecasts for the future, for 20 years in the  
4 future, with growth rates for 20 years in the future.  
5 Frankly, I don't know what our auditors could possibly  
6 do to come up with that information by themselves,  
7 knowing nothing about the product. And in particular,  
8 when you're talking about things like in-process research  
9 and development, you're talking about actually  
10 assumptions around what's the probability of technical  
11 success for a pharmaceutical drug? Not so easy. And,  
12 again, I don't know how an independent auditor could come  
13 up with such a valuation.

14       As far as having an independent valuation expert  
15 for the auditor, I can tell you they use their own  
16 specialists. I can tell you they go through and they ask  
17 us lots and lots of questions about the assumptions,  
18 which is exactly what I would expect them to do. In  
19 fact, we do that before we give it to them.

20       Things come into us on the actual cash flows. We  
21 go back to the people that created them and say, well,  
22 this doesn't make sense or why would this happen? And

1 that's what you would expect management to do before they  
2 hand it off to the auditors.

3         The auditors certainly question discount rates,  
4 but there are a lot of things in there and uncertainties  
5 that there's no way for them to know better than anyone  
6 else. In fact, I am sure that, if you gave it to another  
7 pharmaceutical company, they'd come up with a different  
8 answer. That's probably the only thing I do know  
9 because, inherently, you know, there is no right answer.  
10 There is a reasonableness that you have to come to that's  
11 supported, okay? Supported reasonableness.

12         I did want to say one other thing on the  
13 valuation and the point Sandra made about having people  
14 study a little bit more valuation. I actually think  
15 that's an excellent point. The field of study, the  
16 things we do with valuation today are much more  
17 important. They're pervasive in the financial  
18 statements, and I think it's a great point on, you know,  
19 really it goes to the licensing people, people who are  
20 licensing CPAs. But given the amount of valuation that's  
21 out there and the complexity of it, even management, when  
22 you get to different levels of management, don't

1 understand what the differences between the valuation  
2 they do for a financial statement or that occurs on a  
3 financial statement and the valuation they do to assess  
4 whether or not to buy a business. They are different.  
5 The context is different, what drives them is different.

6           So I do think it's something that is important.

7           MR. BAUMANN: I think that gets back to that  
8 point of the care that audit firms need to make in terms  
9 of making sure that the people assigned to audits where  
10 there are various types of differing complex estimates  
11 and judgments have the necessary experience and expertise  
12 with those types of complex estimates and judgments. So  
13 thanks for those comments.

14           And I think I did say we have Bob to make some  
15 comments, and then we turn back to panel.

16           MR. GUIDO: Thanks, Marty. Loretta, this was not  
17 staged because I'll pick up from what you said. But I  
18 think it all goes hand-in-hand.

19           A couple of observations. We have an  
20 opportunity, and, as an audit committee chair, we have  
21 an opportunity to continue to drive the COSO refresh  
22 project through a lot of these issues that we're talking

1 about. And one of the things that I've asked my board,  
2 the management of the boards I sit on is to really take  
3 these judgment and estimate areas and really focus on  
4 upping the game in the documentation of the process and  
5 fully understanding of what management does to monitor  
6 and measure these particular real tough areas.

7           Having said that, I must say, and I'll thank the  
8 PCAOB for the communication standards required  
9 communications, we do, Sandra, on your last point, we sit  
10 extensively with our outside firms and we talk about  
11 these high-risk areas and what are the related audit work  
12 procedures. So that's being done now, I hope pretty  
13 extensively.

14           MS. PETERS: Yes, we're not saying that that's  
15 not being done. We're saying that we have no insight  
16 into it. So we have very little insight into the  
17 assumptions that go into these complex estimates. The  
18 language is very boilerplate. It's generally from the  
19 accounting standards themselves. This is the complaint  
20 that I hear all the time.

21           Investors are trying to re-do these valuations  
22 because they're trying to value the entirety of the

1 company, and they have little insight into them.  
2 Certainly, as someone who audited insurance companies and  
3 worked at one, I know that the only thing you know about  
4 an estimate is that it's wrong and that what you want to  
5 know later is why it was wrong and what changed.

6           And so that's exactly what reasonable investors  
7 want to know. Was it because the market changed; oops,  
8 we used the wrong interest rate; those sorts of things.  
9 The problem is, and to Philip's point, there is no market  
10 discipline around that because there is no transparency  
11 around that. When you see impairment charges taken well  
12 before they're taken in the financial statements, it's  
13 because investors have valued the business based on their  
14 estimates of the cash flows and taken them. And it's  
15 almost ironic that we look to the market price to  
16 determine the impairment because it presupposes that the  
17 market has more information than management.

18           So we think that management's assumptions and the  
19 like are very important. We'd just like to know more  
20 about what they are and what auditors did around them.

21           MR. GUIDO: And, again, I'll just repeat audit  
22 committee chairs and audit committees today, if they're

1 doing a great job, are doing exactly that. So just let  
2 you know there is some oversight there going on.

3 MS. PETERS: No, I agree with that. I just think  
4 that right now investors have a high degree of skepticism  
5 about that, just what we hear from them.

6 MR. BAUMANN: Jeff?

7 MR. MAHONEY: Thank you and good morning. I  
8 appreciate the opportunity to appear on this panel. As  
9 a representative of institutional investors, I'm  
10 obviously concerned about the PCAOB's observation that  
11 there are "significant audit deficiencies" in the audits  
12 of accounting estimates, including and in particular fair  
13 value measurements.

14 My concern is heightened by several factors.  
15 First, I believe fair value accounting with robust  
16 disclosures provides investors with more useful  
17 information than amounts that would be reported under  
18 amortized costs or other alternative accounting  
19 approaches. In 2008, during the height of the financial  
20 crisis, the Council of Institutional Investors  
21 commissioned a white paper for the purpose of educating  
22 our members, policy makers, and the general public about



1 fair value accounting and its impact on investors. That  
2 white paper issued in July of 2008 was authored by and  
3 expressed the views of Stephen Ryan, who is the KPMG  
4 faculty fellow, professor of accounting, and the director  
5 of the accounting doctoral program at the Leonard N.  
6 Stern School of Business at New York University.

7         In that paper, Professor Ryan concluded that fair  
8 value accounting benefits investors for a whole variety  
9 of reasons, including it requires or permits companies  
10 to report amounts that are more accurate, timely, and  
11 comparable than the amounts that would be reported under  
12 existing alternative accounting approaches, even during  
13 extreme market conditions.

14         It also requires or permits companies to report  
15 amounts that are updated on a regular and ongoing basis.  
16 And it can limit companies' ability to manipulate their  
17 net income because gains and losses on assets are  
18 reported in the period they occur, not when realized as  
19 a result of a transaction. And, finally, gains and  
20 losses resulting from changes in fair value estimates  
21 indicate real economic events that companies and  
22 investors often find worthy of additional disclosure and

1 other information.

2           In October 2008, following the release of that  
3 white paper, the Council participated in the issuance of  
4 a public joint statement with the CFA Institute and the  
5 Center for Audit Quality about fair value accounting.  
6 The joint statement opposed efforts that were underway  
7 at the time by financial institutions and some of their  
8 allies to force the Securities and Exchange Commission  
9 to suspend fair value accounting for certain companies.

10           In our joint statement, we essentially adopted  
11 the views contained in the Council's white paper and  
12 concluded that "suspending fair value accounting during  
13 these challenging times would deprive investors of  
14 critical financial information when it is needed most."  
15 In the six years since that statement was issued, our  
16 position on fair value accounting has not wavered.

17           A second factor that heightens my concern about  
18 the significant audit deficiencies that the PCAOB paper  
19 has identified and which Sandra and Philip also mentioned  
20 is that investors appear to assign a high value to the  
21 auditors' testing and evaluation of accounting estimates.  
22 I believe that view is demonstrated many ways but

1 including by the broad support that the PCAOB has  
2 received from investors for pursuing improvements to the  
3 auditor's report, improvements that would include the  
4 auditor's assessment or insights on management's critical  
5 accounting estimates and judgments.

6         As one example, 79 percent of the institutional  
7 investors responding to a survey conducted by the PCAOB's  
8 own investor advisory group expressed their belief that  
9 the auditor's report should discuss the auditor's  
10 assessment of the accuracy of management's significant  
11 accounting estimates and judgments.

12         As an aside, I would note that elements of KPMG  
13 UK's February 2014 auditor's report for Rolls Royce is  
14 generally responsive to that investor demand, and I'm  
15 very hopeful that, over time, the auditing profession,  
16 the UK, Europe, and particularly the United States will  
17 conclude that it's in their best interests, financial and  
18 otherwise, to improve the auditor's report in a similar  
19 manner and be more responsive to the needs of the primary  
20 customer of those reports.

21         My bottom line is, to the extent that the PCAOB  
22 concludes that the significant audit deficiencies that

1 they've identified can be reduced, at least in part, by  
2 improving existing auditing standards in this area, then  
3 I'm very confident that many, if not most, institutional  
4 investors will be strong supporters of that project.

5         And, finally, just a footnote to Mr. Selling's  
6 interesting remarks on experimenting with independent  
7 appraisals for all assets. In this area, I would echo  
8 the comments on former SEC chief accountant Paul Beswick,  
9 who, on more than one occasion, expressed the view that  
10 the ability of the appraisal or valuation industry to  
11 fully serve the auditing profession and investors is  
12 somewhat inhibited by the industry's inability, at least  
13 to date, to become a true profession. More specifically,  
14 Mr. Beswick has suggested, and I agree, that, as a  
15 starting point, the valuation or appraisal industry  
16 should establish a single set of qualifications with  
17 respect to education level and work experience, with  
18 respect to continuing education, standards of practice  
19 and ethics, and a code of conduct for the profession.

20         With that final observation, that concludes my  
21 prepared remarks. Thank you again for inviting me to  
22 participate on this panel.

1           MR. BAUMANN: Thanks, as always, Jeff, for your  
2 contributions as a SAG member and particularly today as  
3 part of this panel. Guy Jubb's card and then Doug Maine.

4           MR. JUBB: Thank you. As a professional  
5 investor, I'd like to support many, if not most, of the  
6 comments made by this panel. In addition, I'd like to  
7 give emphasis to just two or three aspects which I  
8 believe the Board should consider in terms of its  
9 standards setting.

10           The first is the importance and significance of  
11 management incentives, particularly in the context of  
12 freedom from bias and issues around that. As investors,  
13 I look to auditors to take into considerations the  
14 metrics on which the management are incentivized and to,  
15 in terms of exercising their skepticism and planning  
16 their audit approach and testing, to take due  
17 consideration of that. The incentive to describe a half-  
18 empty bottle as a half-full bottle when, in reality, it's  
19 a three-quarters empty bottle is something we look to  
20 auditors to address.

21           The second is we look to auditors, I look to  
22 auditors to ensure that the clarity of explanation and

1 disclosure, which is something that Sandra mentioned in  
2 her comments, is clear. As an investor, I don't have the  
3 ability to get into the underlying documentation and the  
4 risks associated with particular instruments. And one  
5 of the aspects we learned from the financial crisis was  
6 that the items were often disclosed in some remote part  
7 of the financial statements or the financial  
8 institutions, so they were there. But they were not  
9 explained with sufficient clarity to enable a reader to  
10 form a conclusion as to what the risks and dynamics were  
11 associated with the fair value assumptions.

12       Finally, I'd like to endorse Jeff's last comments  
13 about the read across to the enhanced auditor reporting  
14 project. This is something in the UK where we're now one  
15 year into it and the issues around fair value accounting  
16 and the estimates as being key risks. The additional  
17 transparency that the auditors have provided has served  
18 to not only enable a better quality of understanding and  
19 engagement around those issues but has also led to an  
20 enhancement of the appreciation of the work the auditor  
21 has done and, thereby, the confidence in the financial  
22 statements arising. Thank you.

1           MR. BAUMANN:     Guy, thanks a lot for those  
2 comments. I'd like to just address one. They were all  
3 good comments. The first point you made about management  
4 incentives and bias is a very important one, and I'd like  
5 to just share that, as part of our project, the Board  
6 adopted recently auditing standard number 18 on related  
7 parties and, at the same time, we made amendments to  
8 other standards regarding significant unusual  
9 transactions and financial relationships with executive  
10 officers. And so the risk assessment standards were  
11 amended to specifically require auditors to understand  
12 the financial relationships between the company and its  
13 executive officers for the very point you mentioned: to  
14 understand what incentives and biases could be there that  
15 could be affecting management's judgments and estimates.

16           So that point is excellent and, again, another  
17 important reason for us to make a very clear and distinct  
18 linkage between some of those concepts in risk assessment  
19 with auditing fair values and estimates. So I echo and  
20 put an exclamation point on that.

21           Next was Doug Maine.

22           MR. MAINE:     Thank you, Marty. I want to bring

1 the point of view of a former chief financial officer.  
2 And I can tell you that there's nothing more contentious  
3 than a challenge by my auditor to my fair value  
4 methodologies and assumptions. And the reason for that:  
5 because at the heart of it, you're challenging my  
6 judgment.

7           For that reason, hearing for the first time today  
8 Tom Selling's recommendations, they strike me as a  
9 prudent approach. Thank you.

10           MR. BAUMANN: Thanks very much, Doug. Phil  
11 Santarelli and then Jennifer Paquette, the two cards that  
12 are up. And then we should turn to our academic panel  
13 after that.

14           MR. SANTARELLI: Thank you, Marty. I just, I've  
15 been listening for quite a while, and the last comment  
16 from Jeff kind of brought this, that I think we should  
17 not lose sight of in this dialogue is, clearly, fair  
18 value and the fair value framework provides more relevant  
19 information for investors. But the tradeoff is that the  
20 reliability of those measurements goes down. It's just  
21 the fact of life.

22           And so I wonder whether or not there are certain



1 physical limitations that auditors are faced with with  
2 respect to weighing in on the reliability of those  
3 numbers. Now, I think disclosure could be improved.  
4 Perhaps that would be the answer for the analyst  
5 community. But that's a question for the accounting  
6 standard setters or the SEC primarily, rather than the  
7 auditors and the PCAOB.

8         And I get troubled when I hear the concept of  
9 accuracy around a fair value measurement or an estimate  
10 because, in fact, 24 hours after that number has been  
11 marked, it's no longer relevant. It's not the number  
12 anymore. So you're almost faced as an auditor with,  
13 rather than trying to audit to the accuracy, in fact,  
14 your auditing process is, in many respects, based on the  
15 reasonableness and the integrity of management's process  
16 in arriving at that estimate because there is no, per se,  
17 right answer. There is a range. Unfortunately, balance  
18 sheets have point estimates. Every number on it may be  
19 even cash, I would often say every number, except cash,  
20 is a range, not a point estimate.

21         So that's the physics of the dilemma that we  
22 face. So I would hope with this standard-setting process

1 we can maybe address some of those physics and bake it  
2 into the standard setting. Thank you.

3 MR. BAUMANN: Thanks, Phil. Jennifer Paquette?

4 MS. PAQUETTE: Thank you. I want to go back to  
5 where we started the conversation earlier this morning.  
6 As an investor, I've been puzzled over the years why the  
7 findings around accounting estimates and fair value  
8 haven't produced more of an impact on how audits are  
9 conducted. Not being in the audit profession or being  
10 a preparer, I've been puzzled why there hasn't been more  
11 behavioral change as findings have come out regarding  
12 deficiencies. And that leads me to being very attracted  
13 to this proposal of trying to address it by combining  
14 into one standard and also by trying to draw in in a  
15 better alignment with the risk standards.

16 That being said, I think the contributions by  
17 auditors and preparers, for those who better understand  
18 the nuances of current standards and the proposal,  
19 certainly I would think that those comments could help  
20 staff in terms of where they take this proposal  
21 potentially.

22 From my perspective, it appears to provide better

1 alignment with the risk standards, as I said. I would  
2 hope that it would improve audit quality and provide more  
3 clarity for audit firms and enforcement staff by  
4 producing a standard that is better understood by all.

5 I thought Sandra Peters' comment about it being  
6 difficult for investors to understand the nuances of the  
7 current standards, as well as the proposal, in the staff  
8 paper are very important. It is difficult, I think, for  
9 the average investor to understand something that isn't  
10 really their field of expertise. That being said, as end  
11 users of the financial statements, I think this work is  
12 terribly important to investors. Pursuing areas for  
13 improvement where we have already identified weaknesses  
14 globally is very important for long-term investor  
15 confidence and improving investor confidence in the  
16 information that we are using to make important financial  
17 decisions.

18 Thank you.

19 MR. BAUMANN: Thanks, Jennifer, and thanks to the  
20 panel for your contribution and for all the SAG members  
21 for your valuable input to the panel discussion.

22 I'm going to turn to the last panel for this

1 morning, which is made up of two notable members of the  
2 academic community who will discuss research conducted  
3 in the area of accounting estimates and fair value  
4 measurements and some related observations.

5           So we're pleased to have with us today Lisa  
6 Gaynor, who is an associate professor at the University  
7 of South Florida and holds the Robert Keith  
8 professorship. Her major research examines the judgments  
9 and decisions of audit committee members, auditors,  
10 practitioners, and investors, and is focused on topics  
11 related to auditor and audit committee communications,  
12 independence, and the accounting for and auditing of fair  
13 values.

14           Joining Lisa is Jackie Hammersley, who is an  
15 associate professor of accounting at the University of  
16 Georgia. Jackie's current research focuses on the  
17 factors that affect auditor performance when auditing  
18 complex estimates and auditor and situational  
19 characteristics that affect auditor fraud detection.

20           Lisa?

21           MS. GAYNOR: Thank you very much. I first wanted  
22 to start by telling you how we approach, how Jackie and

1 I approached this topic when we were first called  
2 together and we worked together on it. We first looked  
3 at the consultation paper, and we looked at what the  
4 discussion questions were and we looked at what the  
5 academic research, both being very familiar with it,  
6 questions we thought we could address and then what  
7 questions we couldn't address. And we put it into a  
8 framework, and you can see the framework on the diagram  
9 in the PowerPoint slides. And we tried to put the  
10 literature in a way that we could understand what are the  
11 problems that we note in the academic literature or the  
12 academic literature has noted as problems related to the  
13 auditing of fair values and complex estimates. And then  
14 we thought we would look at why do we think we see those  
15 problems where the auditing literature has determined why  
16 those problems are occurring. And then we were hopeful  
17 that maybe we could use the academic literature to give  
18 us some fixes that we might also be able to address to  
19 help with the standard-setting process. So that's the  
20 approach that we're taking.

21           You can see that the topics that we're covering,  
22 I'm thrilled to say and hear from this morning, that it

1 seems like at least we're on the right track. As  
2 academics, we often get told that we don't know what's  
3 going on in the real world, and we seem to have some idea  
4 of what's going on in the real world because we're going  
5 to talk about the environment, the characteristics of  
6 estimates, the bias that is apparent in estimates,  
7 auditors' knowledge or perhaps their lack of knowledge  
8 on the auditing of estimates, how that affects their  
9 processing, use of specialists, as well as their risk  
10 assessments.

11           Okay. So first what I wanted to do is I wanted  
12 to give the terminology that at least we use in the  
13 academic literature where we talk about, when we talk  
14 about the characteristics of estimates and fair values,  
15 we use the term measurement uncertainty. And measurement  
16 uncertainty basically means that there are well-meaning  
17 experts that you can put into a room and they can  
18 disagree on valuation or even the best method of  
19 estimation, so it's a true estimation in that there are  
20 many different answers to this question as to what is the  
21 true number. There is no true number. It's an estimate,  
22 and we don't know exactly what that number would be.

1           There are a choice of models and assumptions with  
2 no clear winner. And there are macroeconomic risks that  
3 exist that, you know, observed crisis, may be  
4 inappropriate, subsequent that would happen that we would  
5 know that an estimate, an assumption that was made before  
6 the fact no longer is pertinent in those estimate  
7 processes.

8           We talk about how there are subjective inputs  
9 that are often based on unobservable inputs. And then  
10 the outcomes, we define those as often being imprecise  
11 in that they're not necessarily best characterized by a  
12 point but by a range of possible estimates.

13          So where we make a distinction with fair value  
14 measurements and complex estimates is that we're looking  
15 at a situation that we have inputs that are fed into a  
16 model on the output or the outcome, where you have  
17 complexity along the way, that inputs are surrounded by  
18 uncertainty, you have unobservable facts that are based  
19 on subjective assumptions. They go into a model where  
20 it's not just one model. It can be a number of models,  
21 whether it's Black-Scholes, lattice pricing models, or  
22 what we'll see is also a series of models, not just the

1 choice of one model, where management may use a weighting  
2 of different models. So it's not just even one model.  
3 It can be a number of models that management is using.  
4 And then the outcome is a range of possible reasonable  
5 estimates.

6         Then that gets determined into a point estimate  
7 that gets put on a balance sheet or income statement.  
8 Then the auditor is faced at taking that point estimate  
9 and comparing it to another estimate or, not estimate,  
10 materiality or the likelihood and putting that in place  
11 against a range or likely misstatement. So you have this  
12 estimation uncertainty that gets put into a point that  
13 gets compared to materiality.

14         So the next slide you see is this is a study that  
15 was put together by Cannon and Bedard, 2014. It's a  
16 working paper right now. What they did, it's important  
17 to see where these statistics come from and what this  
18 means. This was 80 senior managers and managers  
19 predominantly that were recruited by the CAQ for Cannon  
20 and Bedard and were asked to come up with their 99 most  
21 challenging experiences with a fair value measurement.  
22 And with those, this chart compares, this is what the



1 auditors responded was the number of instances where  
2 materiality, the comparison in materiality and the range  
3 of estimation uncertainty. In this case, their range of  
4 estimation uncertainty, just as defined as the reasonably  
5 possible range of values for the fair value measurement.

6       What you see is that in 70 percent, looking at  
7 that last column, the 26.5, 16.3, 9.2, and the 19.4, 70  
8 percent of those observances, the auditor stated that  
9 estimation uncertainty was greater than materiality. And  
10 in 19.4 percent of the times, estimation uncertainty was  
11 stated to be five times greater than materiality.

12       The highest number or the biggest area where you  
13 saw estimation uncertainty being larger than materiality  
14 was in the area of asset impairments. The most cited  
15 area that auditors chose as the most challenging area was  
16 in the areas of financial instruments.

17       So the next slide that we're looking at is now,  
18 considering that we have this estimation uncertainty,  
19 where auditors are trying to bring this inputs, models,  
20 and outcomes into a range, comparing it to materiality,  
21 we look towards what are the bias in estimates. There's  
22 been many academic studies that some of you are probably

1 familiar with that have documented bias in accounting  
2 estimates and fair values. Some are in terms of the  
3 timing, and some are in terms of the valuation. You see  
4 them in a number of accounts. Some of the studies report  
5 that it appears to be opportunistic bias in terms of  
6 earnings management, but most studies acknowledge at  
7 least that it may be unintentional in some ways.

8       Two studies that, just in terms if you're  
9 thinking about the inputs, the models, and the outcomes,  
10 that we see bias along the way in terms of the inputs and  
11 the models, we have Dechow, Myers, and Shakespeare, where  
12 they report use of lower discount rates when  
13 securitization losses, when there would be securitization  
14 losses then securitization gains, in effect lowering the  
15 losses that would be reported. Choice of models.  
16 There's a paper that's forthcoming in one of our  
17 journals. Bratten, Jennings, and Schwab show that  
18 companies seem to choose the valuation model of Black-  
19 Scholes or flexible lattice pricing model when it would  
20 benefit them in terms of their compensation packages or  
21 stock option pricing.

22       So we look now, if we're assuming that we have

1 these estimation uncertainty that gets put into the  
2 inputs, into the models, we have bias that go into the  
3 inputs and into the models, giving us imprecise outcomes.  
4 We also wanted to look at what is the market's response  
5 to these estimates. Academic research has shown that  
6 estimates that are more likely to be biased are less  
7 value relevant than other financial statement items,  
8 suggesting that as estimates become less reliable they  
9 become less useful to capital market participants and the  
10 market places lower values on Level 3 estimates. But to,  
11 Bob, your point is that result seems to be less when  
12 there is better corporate governance. So audit  
13 committees do seem to be able to mitigate some concerns  
14 by the market for bias in the estimates.

15       The importance that we want to make clear here,  
16 though, is that these studies are using stock price data  
17 from markets, capital market stock price data in most  
18 cases. And so these are audited numbers. So regardless  
19 of whether this is intentional or unintentional, there  
20 appears to be bias in these numbers and these numbers are  
21 getting through the auditors to some extent. And so we  
22 need to understand why these numbers are in the audited

1 financial statements, to the extent that there may be  
2 bias in those numbers.

3           So this is where we kind of go from the problem,  
4 what academic research has shown is the problem, to sort  
5 of understanding why we think it's a problem. So the  
6 first thing I'm going to do is I'm going to point to some  
7 academic research that has explained what auditors claim  
8 to be the most difficult factors that they face in  
9 auditing fair values. Again, this study was about fair  
10 values, not all complex estimates. Again, this is Cannon  
11 and Bedard. This is all about highly-challenging fair  
12 value, their fair value experiences.

13           What you see there is the top four responses as  
14 to what they felt were the factors that made it the most  
15 difficult for them to audit. The first one, number of  
16 significant and/or complex assumptions associated with  
17 the process, high degree of subjectivity associated with  
18 these assumptions and factors used in the process. The  
19 next two, high degree of uncertainty associated with a  
20 future occurrence or outcome of events and then the lack  
21 of objective data.

22           What I think is interesting is, when I'm looking

1 at this input, model, outcome process that I see is that  
2 the first two relate to the inputs, that clearly they're  
3 having trouble with the inputs, that there's too many  
4 things, it's too complex, that they're having trouble  
5 there. Then the next two, the last two on that four-  
6 point bullet list, those really relate to the outcome or  
7 their lack of ability to do the verification procedures  
8 that, Tom, I think you had mentioned in the 30s it was  
9 more about verification and now that blue bubble was  
10 smaller in the red circle. And so that's more about just  
11 a change in the environment and a lack of ability to go  
12 to being able to verify the outcomes.

13 I also find it interesting that, at least in this  
14 study, they didn't comment on the models or that the  
15 models themselves were causing them trouble. Now, Jackie  
16 is going to talk about other studies that they do know  
17 that the models also give them trouble, but I think that  
18 I'm going to start talking about knowledge in a little  
19 bit and I think that's going to get to Sandra's point,  
20 as well, about how knowledge, sometimes not knowing that  
21 you don't know can also be a problem.

22 The areas that they said were most difficult,

1 were the most difficult to audit accounts were financial  
2 instruments. Again, this relates to that table that I  
3 had pointed to before, financial instruments that was 50  
4 percent or approximately 50 percent of the times when  
5 they were asked what was the most challenging experience,  
6 50 percent of those auditors said it was financial  
7 instruments, keeping in mind that the audit of financial  
8 instruments may be more common than the audits of other  
9 areas. But that was 50 percent responded that it was the  
10 most difficult to audit accounts. And then asset  
11 impairments was 30 percent, the next highest most  
12 difficult to audit accounts. Asset impairments, again,  
13 was the one that had the highest level of the estimation  
14 uncertainty to materiality.

15       Also, in this study, 18.2 percent of the sample  
16 or 18.2 percent of the 99 responses indicated that,  
17 regardless of these large estimation uncertainty to  
18 materiality differences or ranges, 18.2 of them proposed  
19 an adjustment. So that comes to about 19 of the 99  
20 responses or 19 of the 98 responses there was an  
21 adjustment proposed. Now, this is a self-reported  
22 number. This isn't going through the work papers and

1 actually looking as to what happened. But Jackie is  
2 going to talk a little bit more about some of the  
3 decisions that are related here, but in this study the  
4 auditors reported that the reason that the proposed  
5 adjustments -- I'm not going to say few but that the  
6 ratio, the reason for the proposed adjustment was less  
7 due about satisfaction with the estimate but more to do  
8 about estimation uncertainty or lack of observable data  
9 and the inability to verify.

10           Going back to the model where we have the inputs,  
11 the models, and the outputs, there's another study by  
12 Jeremy Griffin out of Notre Dame, currently at Notre  
13 Dame, that's soon to be published. It's actually  
14 available right now on the Web. He looks at the  
15 subjectivity of estimates where he's comparing Level 2,  
16 this was with audit seniors to partners, in an  
17 experimental setting, comparing the subjectivity of  
18 estimates, Level 3 versus Level 2.

19           He finds that, in certain settings, as  
20 subjectivity increases, auditors are more likely to  
21 recommend an adjustment and also a greater adjustment  
22 amount. He also finds, though, that when outcome is more

1 imprecise determined by the range, the reasonable range  
2 that the estimate may be, auditors are more likely to  
3 require an adjustment when an outcome is imprecise and  
4 the inputs are highly subjective when they're not as  
5 subjective.

6         The implication there, going through a lot of the  
7 statistics, the implication is that auditors at least  
8 seem to be focusing on the outcome, the dollar amount of  
9 the misstatement, and then focusing on the inputs. When  
10 I think about that, and this is my interpretation, it is  
11 that we think about or I think about, if I'm auditing a  
12 process, you go from the inputs, the model, to the  
13 outcome. This almost seems to indicate if you're  
14 starting with the outcome, because that's what you might  
15 feel more comfortable with, that's the quantifiable  
16 number that you can compare to materiality, they may be  
17 going to outcomes and going backwards and never getting  
18 to the inputs portion of it.

19         Interestingly, when managers, they also had  
20 another condition in this experiment. When managers  
21 include a footnote disclosure of the estimate, the  
22 auditors require lower adjustments. I did want to say



1 to Philip I don't think this has anything to do with  
2 critical audit matter paragraphs that some people might  
3 jump on it. Basically, what this says is when managers  
4 were required to put information about the range or the  
5 estimation process, the assumptions that were used,  
6 auditors were less likely to require an adjustment and  
7 required smaller adjustment amounts. But that was what  
8 managers were putting in the disclosures, not what  
9 auditors were putting in the audit report.

10           One of the last couple of things I wanted to talk  
11 about, and we've heard it today from Sandra and Loretta,  
12 is auditor knowledge. And from an academic perspective,  
13 this is clearly something that I think that I can say for  
14 myself that, in academics, we don't do in most accounting  
15 programs. Auditing of complex estimates and fair values  
16 requires knowledge from areas including finance,  
17 economics, product mix, management, statistics, and  
18 markets, which are not a required part of the academic  
19 or the accounting or auditing curriculum. Auditors are  
20 trained in financial accounting and auditing, simply not  
21 valuation and technical skills.

22           And I think it was somebody -- I apologize for

1 not remembering. It was either Loretta or Sandra. Even  
2 if this knowledge transferred, even if you were trained  
3 in, say, one area of valuation, it doesn't necessarily  
4 transfer, academic research, it doesn't necessarily  
5 transfer into a different area of valuation.

6       And so the implication here is that the use of  
7 specialists -- well, there are several implications. One  
8 is including this in academics or in the university  
9 setting may be a necessity, but also the use of  
10 specialists is clearly a necessity. But I think what it  
11 also comes down to is Jackie has a paper, Griffith et  
12 al., that when they were interviewing auditors, as well,  
13 and documenting the processes that auditors go through  
14 and auditors themselves self report that the testing of  
15 fair values is often conducted by staff inexperienced in  
16 valuations and is supervised by those who often lack the  
17 necessary knowledge to thoroughly understand management's  
18 models and estimates. That could lead to the  
19 implication, and I'm not going to put words into Jackie's  
20 mouth, that this lack of knowledge and experience could  
21 lead to, could contribute to the difficulty in validating  
22 and testing management's critical assumptions and

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 estimates and reduces the auditor's ability to identify  
2 and valuate or even communicate effectively concerns with  
3 management. It kind of goes back to that lack of knowing  
4 what you don't know and not being able to communicate it  
5 effectively.

6       Lastly, there's been some talk about professional  
7 skepticism today. There's a model by Nelson (2009) that  
8 talks about professional skepticism, and the first input  
9 in professional skepticism is knowledge. And so without  
10 a lack of knowledge, skepticism becomes difficult. It  
11 goes from knowledge to skeptical judgment, skeptical  
12 outcomes, and then evidential outcomes. And then that  
13 feedback mechanism feeds back into knowledge. Well, this  
14 knowledge and this recursive battle also talks about  
15 misstatement risk, that you need to have the knowledge  
16 and this feedback mechanism to be able to understand  
17 risks and proper risk assessments.

18       So the implication here is that this lack of  
19 valuation expertise, lack of valuation knowledge could  
20 be related to what, if you see PCAOB inspections, it may  
21 have said lack of professional skepticisms or observances  
22 where it really may be more about it's a lack of

1 understanding risk and a lack of understanding how the  
2 risk feeds back into the process.

3           From here, Jackie is going to continue and talk  
4 about auditor's process and talk about why we think we  
5 see some of the problems and then solutions.

6           MS. HAMMERSLEY: Thanks, Lisa. As Lisa said, I'm  
7 going to --

8           MR. BAUMANN: Jackie, could you move the  
9 microphone a little bit closer? Thanks. A little closer  
10 yet.

11           MS. HAMMERSLEY: A little closer yet? Is that  
12 better? All right. So I'm going to focus my comments  
13 on two areas of new research. The first focuses on how  
14 estimates are audited, and, from that, we've come to  
15 understand what the common problems are while auditing  
16 estimates, some of which we've heard this morning, with  
17 a focus on trying to understand what the root causes of  
18 those problems are. These studies have been conducted  
19 either by doing in-depth interviews with very experienced  
20 auditors who work in the area or by serving auditors who  
21 work in the area. And then there is a small stream of  
22 research that is just getting started that is looking at

1 ways to improve the audit of estimates.

2           This literature has been following up on some of  
3 the issues that have been identified in the interviews  
4 and surveys and is using experimental methods to examine  
5 ways to change the way auditors approach the audit of  
6 estimates in the way that you can in an experimental lab.  
7 So I'll touch on that briefly at the end.

8           First, we've started by trying to understand how  
9 auditors approach the audit of estimates. And what we've  
10 learned is that, while there are three approaches  
11 described by the standards as allowable, auditors  
12 overwhelmingly choose to audit management's process or  
13 model. And they do this by verifying or confirming each  
14 of management's assumptions, and they report doing this  
15 because it's more efficient than, say, choosing to  
16 perform an independent estimate. We heard repeatedly  
17 that if they prepare an independent estimate, they will  
18 invariably have differences between their assumptions and  
19 management's assumptions or their estimate and  
20 management's estimate, and they'll have to circle back  
21 at the end and figure out what all of those differences  
22 are. And in the end, they end up augmenting management's

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 process anyway. And so they cut to the chase and audit  
2 management's process.

3       As a result of choosing to verify management's  
4 assumptions, they end up using sort of a verification or  
5 confirmation mode that has implications that result in  
6 them verifying the estimate, verifying the assumptions,  
7 rather than stepping back sometimes and doing a critical  
8 evaluation of the estimate. They'll carve up the  
9 responsibility for the assumptions that form the basis  
10 for the estimate by assigning the economic and industry-  
11 based assumptions to the valuation specialist, usually  
12 an in-house valuation specialist. That specialist will  
13 also generally evaluate the reasonableness of the model  
14 that's used to generate the estimate. And engagement,  
15 the audit team will retain responsibility for any  
16 accounting-based assumptions.

17       Importantly, the auditors, the audit team will  
18 retain responsibility for evaluating the overall  
19 responsibility of the overall reasonableness of the  
20 estimate. I will note that for difficult to audit  
21 estimates, auditors do take advantage of the flexibility  
22 that is available in the standards and do report for

1 these difficult to audit estimates, that they will use  
2 multiple methods. They do seem to still overwhelmingly  
3 audit the process or model, but they will supplement by  
4 preparing independent estimates or using subsequent  
5 events and data.

6       Turning now to some of the problems that came out  
7 of this work, first, again, out of the Cannon and Bedard  
8 paper that asked auditors specifically about their most  
9 difficult to audit fair values. These auditors reported  
10 that their inherent risk assessments for these estimates  
11 or fair values didn't always reflect the underlying  
12 account risk. So more than one-third of the time on  
13 these accounts, the inherent risk for these accounts was  
14 assessed as low or moderate when estimation uncertainty  
15 exceeded materiality, and this is a little troubling.

16       The other finding they reported related to risk  
17 assessments was that control risk assessments and control  
18 testing often don't lead to reduced substantive testing,  
19 even for accelerated filers. And the reason given for  
20 this was that controls are not precise enough to address  
21 the specific risks related to the subjective assumptions.  
22 They did note that this varied by account type, so

1 controls were more likely to be relied upon for financial  
2 instruments and pension plan assets than for asset  
3 impairments, which may not be surprising given what Lisa  
4 said earlier.

5       Related to assumptions, auditors have a number of  
6 problems related to evaluating assumptions. Some are  
7 related to relying on specialists, as we've noted.  
8 Specialists are here to stay. Auditors need to rely on  
9 specialists because they do not and cannot have the depth  
10 of valuation knowledge that's needed to evaluate the  
11 finance and economic-based assumptions that are embedded  
12 in some of these models, but this creates difficulty  
13 because the auditors still have to evaluate the effects  
14 these assumptions have on the overall estimate. And the  
15 lack of valuation knowledge means auditors often have  
16 difficulty identifying the critical assumptions that  
17 drive risk in the estimate and evaluating the  
18 reasonableness of those assessments and then pushing back  
19 both on the specialist and on their client about the  
20 reasonableness of that assumption and how the changes in  
21 that assumption change the estimate.

22       The reliance on choosing to audit management's



1 process can make auditors a bit myopic. So choosing to  
2 verify the process means that auditors often adopt a  
3 step-by-step process. That means they're verifying each  
4 of the individual assumptions used in the model, rather  
5 than critically evaluating the overall estimate. And in  
6 doing this, they sometimes fail to consider whether the  
7 assumptions fit together. So they may fail to notice  
8 inconsistencies among the assumptions and other available  
9 data. They may fail to notice that there's other data  
10 available in work papers that contradicts some  
11 information that's being used in the estimate. They may  
12 overlook information that is not used in the estimate,  
13 but it's not included in the model at all as an  
14 assumption and perhaps should be or, again, contradictory  
15 information.

16         This is an especially difficult problem to solve  
17 because it's very difficult to specify in advance using  
18 a checklist or a standard what information may be  
19 relevant to an estimate. But this reliance on evaluating  
20 management's process seems to exacerbate this problem.

21         There are other problems related to the use of  
22 specialists, so the current standards related to the use

1 of internal valuation specialists treat these people as  
2 any other member of the engagement team, so AS 10 governs  
3 the inclusion of these people on the team. And when  
4 interviewed about how they use these people, how they use  
5 internal valuation specialists, auditors report that the  
6 lack of specific items about how they should use them  
7 means that they have adapted the practices from the  
8 guidance on using external specialists, but that guidance  
9 is pretty silent on what valuation specialists do, how  
10 they interact with auditors, and how they're findings  
11 should be incorporated into the audit.

12           And, further, in addition to the difficulty with  
13 evaluating assumptions that comes from the lack of  
14 knowledge, lack of understanding of their work also leads  
15 auditors to sometimes misunderstand the importance of  
16 what the specialists report in their memo, what their  
17 findings say. That sometimes leads them to dismiss their  
18 findings as unimportant, that they may fail to follow up  
19 on the issues that are identified, and they may be  
20 uncertain about the sufficiency of the evidence related  
21 to the specialist's examined assumptions.

22           The comments related to misstatement evaluation

1 come from a survey with very experienced audit partners  
2 who were asked about auditing issues related to accounts  
3 with extreme estimation uncertainty. And this is a  
4 situation that these partners reported as occurring  
5 frequently. One-third of these partners reported this  
6 as happening frequently. I want to make clear I'm  
7 talking about a situation where this estimation  
8 uncertainty exists at the end of the audit, where they  
9 have worked to reduce this estimation uncertainty using  
10 all appropriate means, but the estimation uncertainty  
11 remains.

12           So, for example, we could have a situation where,  
13 after completing the audit, the auditors and the  
14 specialists may agree that there's no single input within  
15 a 20 basis point-range that's better than any other, but  
16 that 20 basis point-range produces a reasonable range on  
17 the estimate that is greater than materiality, perhaps  
18 many times greater than materiality.

19           In this case, when management's estimate is  
20 materially outside that reasonable range, that large  
21 reasonable range, current standards require an adjustment  
22 to the nearest end point of the range. But the range is

1 still very large.

2           When management's estimate is inside the range,  
3 current standards don't require an adjustment, even if  
4 the width of the range exceeds materiality or the  
5 difference from the point estimate to management's  
6 estimate exceeds materiality, as that picture shows.

7           So this can mean that the related uncertainty in  
8 net income or earnings per share, if an adjustment on  
9 this estimate would affect those accounts, is much  
10 greater than investors might understand. In these  
11 situations, the auditors noted it's difficult to  
12 determine whether they've reduced the estimate's  
13 reasonable range sufficiently, whether they have  
14 collected sufficient audit evidence, and how to determine  
15 whether a misstatement exists in the financial statement  
16 line item.

17           So now some good news. So we're just beginning  
18 to examine how to improve the audit of estimates. A few  
19 experiments have examined auditors' critical thinking  
20 about estimates and whether the resulting planned actions  
21 would be effective for improving audit outcomes. We  
22 think this is where the focus should be, rather than

1 merely on whether skepticism, as a nebulous concept, was  
2 increased about the estimate. And we see some promise  
3 here.

4         So there have been four studies that I cited on  
5 the first slide that have all focused, in one way or  
6 another, in changing the way auditors approach the audit  
7 of the estimate. I'll talk about one method, and it  
8 happens to be a study I'm a co-author on.

9         We look at changing auditor's focus to big-  
10 picture goals, why you do something, rather than, away  
11 from how you do something. And what we found is that  
12 changing that focus made auditors more likely to notice  
13 available information, information that was in the  
14 working papers, that contradicted assumptions that were  
15 being used to form the estimate. And, importantly, it  
16 did this without any increase in time or effort involved  
17 to complete the task. And this resulted in improved  
18 identification of the biased estimate. So the auditors  
19 rated this estimate as more biased and increased the  
20 urgency with which they wanted to follow up on this  
21 biased estimate and made them want to follow up on the  
22 right things.

1           So we think this change in focus holds a lot of  
2 promise. Of course, it's one study, and we know that,  
3 you know, we need a portfolio of research before we can  
4 really move forward. But it's a start.

5           All of this research that Lisa and I have talked  
6 about this morning suggests some standard-setting  
7 implications. So, first, we know from the literature  
8 that estimates contain bias especially those that require  
9 significant judgment to prepare. This suggests that an  
10 auditor presumption of bias might be needed for these  
11 accounts. And some guidance about where the estimates  
12 are vulnerable to bias and how to identify the presence  
13 of bias might be necessary.

14          Second, others have said this, auditors lack  
15 valuation knowledge. It's not realistic for them to have  
16 the depth of valuation knowledge that a valuation  
17 specialist has, but this lack of knowledge impedes, the  
18 lack of vocabulary impedes discussions with valuation  
19 specialists. And so some encouragement to obtain basic  
20 valuation training; and, as people move up in the firm,  
21 additional encouragement may be needed.

22          The current standards implicitly encourage a

1 step-by-step verification of management's process. The  
2 standards currently provide much more guidance about how  
3 to audit management's process than they do about how to  
4 prepare an independent estimate or get evidence about  
5 subsequent events data. And this may impede the  
6 identification of missing or inconsistent assumptions,  
7 so perhaps some guidance about how to effectively obtain  
8 evidence from those other methods is in order.

9       Finally, the current standards on using  
10 specialists don't provide a lot of guidance about using  
11 internal valuation specialists. And so some guidance is  
12 needed on when and how to use them and how to incorporate  
13 their findings. And then, finally, the auditor's  
14 responsibilities for accounts with extreme estimation  
15 uncertainty are untenable. Clear guidance about the  
16 audit evidence and procedures to address the risks that  
17 are unique to estimates and fair value seems necessary.  
18 Consolidating the standards would reduce uncertainty  
19 about which standards apply. Guidance on how to reduce  
20 the reasonable range in the presence of extreme  
21 estimation uncertainty and what to do when it remains  
22 after all options are exhausted would be beneficial.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 When extreme estimation uncertainty remains, we have to  
2 consider whether investors have enough information about  
3 this uncertainty. And, finally, we need to consider  
4 whether it's reasonable for auditors to provide positive  
5 assurance about this point estimate.

6 So thanks for inviting us today.

7 MR. BAUMANN: Lisa and Jackie, thanks for those  
8 very, very valuable thoughts. We appreciate all your  
9 comments on the academic research in this area and your  
10 views and the standard-setting implications.

11 As I mentioned earlier, we really are looking for  
12 comment letters, and that's very, very important to us,  
13 in addition to the input we receive today. But it would  
14 be great if the comment letters really addressed some of  
15 these points that were made here. How should the auditor  
16 approach situations where measurement uncertainty exceeds  
17 by two to five times materiality, and how should auditors  
18 approach narrowing that gap in reporting? And that also  
19 does tie into the auditor reporting model project and  
20 what the auditor report could say about such situations  
21 where their report is based upon estimates that have  
22 measurement uncertainty greater than materiality and then



1 also points about the skill set that the standards might  
2 require that auditors, again, need to have necessary  
3 appropriate experience and skills pertinent to the fair  
4 value measures and estimates that they're dealing with,  
5 as well as some of the bias issues and confirming versus  
6 disconfirming evidence requirements that maybe should be  
7 in the standard.

8           So a lot for all of us to chew on and a lot for  
9 all of us, hopefully, to hear from commenters in terms  
10 of ways for us to think about this in our standards  
11 setting.

12           We're running late, but we have a couple of cards  
13 up. I think Tom Selling, Sri Ramamoorti, and Wayne  
14 Kolins, and Rachel Polson. So we take those four  
15 comments, and then we'll break for lunch. Tom first.

16           MR. SELLING: Thanks. And I'm very sympathetic  
17 to the idea that we're running over, so I'll try to make  
18 this quickly. But I was truly fascinated by the  
19 presentation both for its breadth and also for the  
20 information.

21           A number of SAG members have expressed concerns  
22 about the problems of estimation range, so it's good to

1 see empirical data regarding the significance of that  
2 problem. But I also would like to encourage us to think  
3 about the relative significance of the problem of  
4 estimation uncertainty versus concerns about biases,  
5 again from an investor perspective.

6 Financial theory suggests that investors would be  
7 much more concerned about bias. Non-systematic  
8 investment risk due to estimation uncertainty can be  
9 reduced, if not eliminated, by holding a diversified  
10 portfolio. But bias cannot be diversified away. That's  
11 why, from an investor point, I think bias may be more  
12 important. But having said that, also estimation risk  
13 is important because it is a real risk to auditors.

14 Also, with respect to the criteria of value  
15 relevance, while it's important in understanding the  
16 economic significance of bias, and Lisa presented some  
17 data about how bias affects stock values, I think that,  
18 considered by itself, that actually understates the  
19 problem, even though this data was pretty dramatic. It  
20 doesn't directly address the corporate governance issues  
21 of wealth transfer engendered by earnings management.  
22 The statistical techniques that are used to measure value

1 relevance probably are not sensitive enough to pick up  
2 on that type of effect, but I think that's very important  
3 for the PCAOB to consider.

4       Third, when thinking about what auditors are  
5 trained to do as students, I'd also like to see research  
6 on management's preparedness to perform complex  
7 valuations. The financial statements are certified by  
8 CEOs. Yet, very often it's the case that management  
9 doesn't have specific education or background regarding  
10 valuation either. So this has important implications not  
11 just for the intentional biases that I may have been  
12 focusing on but also that could introduce unintentional  
13 biases.

14       And, finally, regarding reasonable ranges that  
15 exceed materiality and that discussion by Jackie, I want  
16 to note that biases permitted up to a materiality  
17 constraint can accumulate to very highly-material  
18 effects. To borrow a phrase, it's death by a thousand  
19 immaterial misstatements. So thanks.

20       MR. BAUMANN: Thanks, Tom. Wayne Kolins?

21       MR. KOLINS: Yes, I had one question. One of  
22 those slides mentions improving critical thinking, which

1 is a real fundamental behavioral trait. Do you think  
2 that this is the kind of behavior that should be taught  
3 at the undergraduate level, as early as possible before  
4 the individual either goes into the accounting profession  
5 or goes into private industry and is actually coming up  
6 with the estimate?

7 MS. HAMMERSLEY: I think that this is something  
8 that we all have an obligation to work on. So I think  
9 that, certainly, at the undergraduate level it's  
10 something that should be built into the curriculum. But  
11 I think that at the, you know, staff senior level, tasks  
12 that staff need to be clear about why they're doing what  
13 they're doing and what the implications are for what  
14 they're doing for the rest of the audit so that they can  
15 recognize a problem when they see it and start to develop  
16 those critical thinking skills in the context of the  
17 audit is especially important, as well.

18 So there's a well-developed literature in the  
19 fraud paradigm that is starting to move over to the  
20 estimates literature that shows that auditors are pretty  
21 good at knowing where there's risk. They're less good  
22 at identifying what to do in response to that risk. And

1 most of these studies, I'll say, have been conducted on  
2 senior-level auditors. But these senior-level auditors  
3 are the ones in the field doing the work and making the  
4 first-line decisions and are the filter on what goes up  
5 the line, and so their judgments are critically  
6 important.

7 MS. GAYNOR: Also, what Jackie was talking about  
8 and some of the research that's starting, it sounds  
9 silly, and I don't want to use the word "infancy," but  
10 in the academic process, the publication process is a  
11 very long, sometimes way too long, process. So where we  
12 had difficulty trying to find the papers to necessarily  
13 give you a lot of data, but the literature that talks  
14 about critical thinking or ways to try improve is  
15 relatively new, but we can look towards some research  
16 that has been done before that we think will apply and  
17 the new research that's coming out. But a lot of it is  
18 trying to frame, put the auditor -- Jackie has a paper  
19 on mindset and there's a couple of papers on framing and  
20 how you get auditors -- you mentioned confirmation bias  
21 -- how you just get auditors to get out of the way  
22 they're usually searching for evidence or how they're

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 approaching the picture, construals, mindset, putting  
2 them into a different focus.

3       The other thing for academics, between the AAA  
4 and accreditation boards, critical thinking and analytics  
5 are becoming the biggest push that we have in academics  
6 to bring into our classrooms across the board. And I  
7 know that most of us are trying to incorporate more  
8 critical thinking and analytics into our classrooms at  
9 the undergraduate and graduate level.

10       MR. BAUMANN: Thanks. Sri Ramamoorti?

11       MR. RAMAMOORTI: First of all, I wanted to thank  
12 Lisa and Jackie for their presentation. I didn't know,  
13 Jackie, this is what you were up to lately. I've known  
14 her from my days at the University of Illinois.

15       To me, the key takeaway is the issue of auditors  
16 don't understand valuation, Sandra Peters' comment that  
17 you cannot audit what you don't understand. There's a  
18 general comment that when competence goes down, risk goes  
19 up. I think this whole area of valuation and auditing  
20 of fair values and estimates poses a competency threat  
21 to the auditing profession because students don't get  
22 courses in valuation. They're all mostly offered in the

1 finance department, not in the accounting department.  
2 And I had a vivid demonstration of this in the late '90s  
3 when I was a member of the AICPA's financial instruments  
4 task force representing Andersen, and one of the big four  
5 firm partners, and I shall protect the innocent and not  
6 name the firm, but he basically stood up one day and he  
7 said, "Guys, I am departing from this committee. This  
8 whole discussion is getting very heavy for me. I think  
9 I understand now why I was an accounting major, not a  
10 finance major, in college."

11           So this is not good. We need to change that  
12 around, and it shouldn't be possible for accounting  
13 majors to graduate without a solid understanding of  
14 financial economics and how that plays into financial  
15 reporting and this whole area that, you know, we are now  
16 talking about.

17           MR. BAUMANN: Thanks, Sri. And, Rachel, you have  
18 the final word.

19           MS. POLSON: I just wanted to say, as being a  
20 practicing audit partner, a lot of the things that Lisa  
21 and Jackie said are very true and is what you see  
22 happening on this, you know, lack of knowledge of people

1 doing things. And I think a lot of it goes down to not  
2 only the audit partner but then the audit team being able  
3 to say I don't have the specialty and I shouldn't be  
4 working on this. And part of that goes to the firm's QA  
5 program. You know, they only assign partners that have  
6 the proper industry area. Well, that should also be  
7 going down the staff level to make sure that they can do  
8 the work because that's how a lot of things are going to  
9 get mitigated and they're going to be properly trained.  
10 So I agree with what you're saying there.

11           And then the other part is the one part I thought  
12 should be included in the standard is getting more of  
13 that independent expectations process worked into the  
14 audit procedures because I do think that that is good for  
15 the auditor to come up with what they think the answer  
16 should be and then comparing that back to what the  
17 company came up with to see are you on the same basis,  
18 are you coming up with the same kind of conclusion, and  
19 how far apart you are.

20           And then that part where you're talking about,  
21 Marty, of the whole piece of how would auditors then  
22 address that difference would be good to basically get



1 us there because that's the whole part is how else do we  
2 challenge and come up with the a company's estimates  
3 without coming up with what our own answer would be.

4 MR. BAUMANN: Good comments. Well, thanks again.  
5 This panel, obviously, intrigued us all, educated us all,  
6 and created great value, as well as the SAG member  
7 comments. So thanks to all of the panelists this morning  
8 and this last panel certainly, as well.

9 We are running a bit late. We have a busy  
10 afternoon ahead of us, so I'm going to make an estimate,  
11 and we know estimates are often inaccurate. But I'm  
12 going to estimate that we'll be back here about 1:20 so  
13 we can possibly get somewhat near to schedule. Lunch is  
14 upstairs for the people around the table, and let's do  
15 our best to try to make that estimate. Thank you very  
16 much.

17 (Whereupon, the above-referred to  
18 matter went off the record at  
19 12:41 p.m. and went back on the  
20 record at 1:24 p.m.)

21 MR. BAUMANN: Great, welcome back. Nike, I think  
22 there's a slide you have to put up one more time to

1 remind everybody that the views expressed by each of our  
2 panelists who presented are their own personal views and  
3 not necessarily those of the PCAOB Board or PCAOB staff.

4       So, the next panel is dealing with developments  
5 and valuation. The topic of this panel focuses on how  
6 valuation is evolving, both in fair value measurements  
7 and other accounting estimates and what that could  
8 potentially mean with respect to auditing accounting  
9 estimates and fair value measures.

10       Our panelists provide a diverse range of  
11 expertise in this area and we look forward to hearing  
12 from them.

13       First, we have Sir David Tweedie, who is Chairman  
14 of the International Valuations Standards Council. Prior  
15 to this role, David was President of the Institute of  
16 Chartered Accountants of Scotland and has served as  
17 Chairman of the IASB as well as CEO of the International  
18 Financial Reporting Standards Foundation, among many  
19 other matters.

20       We also have Matt Brodin who's Director of  
21 Interactive Data Corp's Pricing and Reference Data's  
22 Evaluation Services Group. Interactive Data Corp

1 provides financial market data including evaluation  
2 services, reference data and pricing services.

3 Matt's expertise is in the evaluation of  
4 mortgage-related and other fixed incomes securities.

5 And our last panelist is Alan Meder who's the  
6 Senior Managing Director and Chief Risk Officer at Duff  
7 & Phelps Investment Management Co. Alan is the Principle  
8 financial officer of four New York Stock Exchange listed  
9 investment companies and is the chair of each fund's  
10 valuation committee. He's also a member of FASB's  
11 advisory group FASAC.

12 With that, I'll turn to Sir David to kick off  
13 this panel.

14 MR. TWEEDIE: Well thank you, Marty.

15 I'm going to talk about the background to  
16 valuation as we see it from the International Valuation  
17 Standards Council for two reasons: there's been  
18 increasing focus on fair values, partly the broadening  
19 application of them in financial reporting and, of  
20 course, the 2008 financial crisis.

21 I first came across valuation when I was KPMG's  
22 UK International Technical Partner in the '80s and one

1 of our clients had bought the company that manufactured  
2 Smirnoff vodka. And, in those days, the rules were that  
3 we didn't have intangibles on balance sheets, so it was  
4 classified as goodwill and the UK had a rather bizarre  
5 accounting standard that wrote goodwill off against  
6 reserves. The result of which, this company was going to  
7 have no net worth.

8       After some deliberation, we decided we'd allow  
9 them to put Smirnoff on balance sheet as a brand but only  
10 if we actually worked out how they calculated the price  
11 they paid for it and that turned out to be a DCF  
12 technique. And what we did is, we set out the rules that  
13 we were going to look at this cash flow as it happened,  
14 compare it against the price that they paid for it and  
15 that was going to form the impairment model.

16       And that, in fact, did begin the impairment model  
17 that we eventually adopted in the United Kingdom for  
18 goodwill in brands. It spread then to the international  
19 arena and, of course, you use it in the United States as  
20 well.

21       When we first introduced it into the  
22 international accounting, I remember the then chief

1 accountant to the SEC was almost apoplectic and said that  
2 the United States had discovered the accounting for  
3 brands and goodwill some 30 years earlier and that was  
4 to write them off over 40 years.

5           And as I pointed out to the gentleman -- in the  
6 United Kingdom, we have brands such as Gordon's Gin and  
7 Johnny Walker, they're actually older than the United  
8 States and, in my humble opinion, have done more for the  
9 sum of human happiness than the United States and,  
10 personally, I'd write off America before I'd ever write  
11 off Johnny Walker Blue Label.

12           But these sort of things laid on to others  
13 because the company then wanted to bring on its homegrown  
14 brands and we wouldn't let them because we didn't trust  
15 the valuation techniques. And that still has persisted  
16 in accounting. There are very few homegrown intangibles  
17 that are allowed on to balance sheets.

18           And when Australia adopted international  
19 standards, Rupert Murdoch had to remove all his mast  
20 heads from his Australian accounts, hundreds of millions  
21 of Australian dollars, simply because we didn't trust the  
22 basis of the valuation.

1 Business valuation intangibles is a growing area  
2 in the valuation sphere, it's the younger area, the more  
3 mature one is real estate but the real problem lies with  
4 financial instruments.

5 In international standards, IS 39 was the  
6 standard that dealt with financial instruments. It was  
7 amalgam of several of the American standards. I often  
8 used to say, if you understood that standard, you hadn't  
9 read it properly.

10 We ended up in huge fights with French banks who  
11 did not like valuing derivatives and other things at fair  
12 value. And that persisted right through the crisis.

13 After the crisis, the IASB and the FASB changed  
14 how we accounted for financial instruments. We changed  
15 the disclosures, but comparatively little action was  
16 taken to deal with the valuation problems that were  
17 thrown up during that particular crisis.

18 I first came across them about three or four  
19 weeks after Lehman's collapsed when I was attending a  
20 Financial Stability Board meeting. And I can say that  
21 I have never smelled such fear in a room as I did that  
22 day. There was a general feeling that the whole

1 financial system would come crashing down.

2           And people were taking fire sales as the values.  
3 These were the only values that were out there at that  
4 time because the markets had completely frozen. Values  
5 were tumbling and the Financial Stability Board turned  
6 to me and said, and what's the accountants going to do  
7 about this? And our reaction was, you know, we're  
8 accountants, we take values, we don't create them. And  
9 it turned out, there was nobody creating the values out  
10 there.

11           So the IASB and Bob with FASB did the same. We  
12 had to set up a task force consisting of industry  
13 experts, bankers, auditors, et cetera -- regulators, to  
14 come out how you value in illiquid markets and that  
15 eventually -- we had a joint statement which we both  
16 added to our literature.

17           But it became highly political. Chancellor  
18 Merkel, Prime Minister Berlusconi, President Sarkozy and  
19 President Barroso spent half an hour discussing financial  
20 instrument accounting one day. Now I would have loved to  
21 have been a fly on the wall listening to that, but that's  
22 how serious it got. It got right to the top.

1           And in the heart of this, I remember being  
2 interviewed by the BBC World Service and the interviewer  
3 said, during this crisis, fingers are pointing and  
4 fingers are pointing at you. You're the man who caused  
5 the crisis.

6           And I said, they're right, it was me. I made  
7 banks give up their risk management techniques. I made  
8 them give loans to people who had no assets and no  
9 income. I made them take these mortgages, break them  
10 into tiny pieces, add them to tiny pieces of lots of  
11 other mortgages. I made them scatter them worldwide.  
12 I made the rating agencies give them AAA ratings. I made  
13 people buy them even they didn't know what was in them.  
14 It was all my fault.

15           And there was a silence and then the interviewer  
16 said, for the benefit of overseas listeners, that was  
17 irony.

18           But it became a highly contentious issue.  
19 Companies, especially in Europe, were looking for ways  
20 to escape using fair value. And they found a little  
21 known line in the U.S. GAAP which said that in rare  
22 circumstances, you could switch from fair value to cost.



1 Now rare in practice, in the United States, meant never.

2 But suddenly, we discovered that the European  
3 Commission was going to change the law to make it  
4 allowable despite what the standard said, to let people  
5 go to cost. And our first reaction was, let them do it.

6 And then the SEC contacted us to say, you've got  
7 to step in because if they do it, they're not going to  
8 do it like the U.S. does, with the transfer of fair  
9 value, nor is there going to be any disclosure, they're  
10 just going to add back all their losses.

11 The markets won't believe the numbers. The  
12 European markets will implode and that'll spread across  
13 the Atlantic.

14 So within a week, we had to make a change in  
15 accounting standards without any due process and we were  
16 torn apart for it. The alternative was to watch the  
17 markets blow up, so we felt we'd no option.

18 Bob had similar problems with Congress -- a  
19 change that didn't put all the fair value changes through  
20 profit and loss account, it went to other comprehensive  
21 income. Europe instantly wanted that change as well, and  
22 probably the only thing that saved us was the fact that

1 they wanted us to copy exactly what the Americans would  
2 do in the future and when we mentioned that they were  
3 heading for full fair value, that shut them up  
4 completely.

5           And the U.S., as you know, did expose a full fair  
6 value model and I think the results were 6.5 billion  
7 against and 1 in favor and that was Bob's auntie.

8           But the sort of thing there -- it shows you the  
9 tension that was around at that time.

10           If we'd had marked the loan book of British banks  
11 to markets, the profits would have been much more  
12 volatile in the UK, 100 billion over the first five years  
13 of the decade, but in 2008, the hypothetical losses would  
14 have been 300 billion pounds and that peaked at 400  
15 billion in 2009.

16           The total resources of the British banking system  
17 at that time was 280 billion, so the entire system would  
18 have been bankrupt on a fair value basis and that's one  
19 of the reasons we didn't go that far.

20           But what both us, FASB and ourselves, did was we  
21 required companies to show the fair value of these loan  
22 books and then that is an area that causes problems. We

1 often talk about the figures in the accounts, but the  
2 disclosure is important, too, because this was the check  
3 on whether these loan books should be impaired.

4         And we had an example, just a couple of years  
5 back, with the Co-operative Bank which showed that their  
6 loan book was worth 37 million pounds more than the book  
7 value -- which was the figure in the account.

8         After well known difficulties and their  
9 regulatory scrutiny, they changed that six months later  
10 to save -- well, actually, the fair value was 3.7 billion  
11 less than the book value. And that started showing you  
12 the unreliability of some of these numbers.

13         Hong Kong Shanghai actually stated in their  
14 accounts in 2011 that comparisons of fair values between  
15 the entities may not be meaningful and users are advised  
16 to exercise caution when using the data. That was their  
17 disclosure information.

18         There's been other worrying signs. Tests done by  
19 banking regulators last year internationally using  
20 hypothetical portfolios, which they gave to various  
21 financial institutions, yielded large valuation  
22 differences. We're not talking small ones, these were

1 huge.

2           And if somehow the more aggressive banks had used  
3 the more conservative measures, it was estimated that  
4 equity would probably have been wiped out.

5           So the problems are still there and that raises  
6 questions. We've got a lacuna in regulation. If these  
7 variations are so big, how well can we rely on the Basal  
8 liquidity buffers and capital buffers and what does this  
9 say for profit and loss accounts and balance sheets as  
10 we go forward?

11           It is very difficult for regulators and for  
12 auditors because where are the benchmarks that say, this  
13 is where they should be, when you've got this wide  
14 variation.

15           In the International Valuation Standards Council,  
16 we're doing two things. Our job is firstly to try and  
17 get agreed international standards and we've made  
18 progress in that by getting many of the valuation  
19 organizations signing up to the fact that we'll try and  
20 get to one set of standards internationally.

21           Secondly, and the point that Jeff made earlier,  
22 there is a problem about the valuation profession. Is

1 it a profession? And Jeff mentioned Paul Beswick's  
2 comments.

3           So one of the things we're also doing is we're  
4 setting out valuation professional standards, which deal  
5 with entry requirements, exams, CPD, et cetera, as Jeff  
6 mentioned. And perhaps even a common designation where  
7 people will understand that these people aren't  
8 qualified, like CPAs and things like that which have  
9 universal recognition. But the qualifications at the  
10 moment don't have that recognition at all. The idea is  
11 let's identify the cowboys and those that are properly  
12 trained.

13           There are various reasons for the differences in  
14 financial instrument valuations. A lack of transparency  
15 and poor disclosure about the purpose and basis, a lack  
16 of precision around the language used to describe  
17 valuations ---- it's often not clearly articulated when  
18 it's commissioned, a lack of relevant market data or  
19 market activity because the inherent features are the  
20 product -- meaning there's no active market for it and  
21 that is a particular problem within some of the banks  
22 because the information is not in a public domain, it's

1 held proprietorially and it's very difficult to get  
2 comparisons. And we're hearing that some audit firms are  
3 even asked to sign confidentiality agreements not to  
4 reveal this information.

5 Differences can be caused by inappropriate  
6 models, errors in the way the model is calibrated -- such  
7 as using price data for one range of products for another  
8 range but without sufficient adjustments.

9 Relatively small differences in the inputs used  
10 to construct a yield curve can lead to significant  
11 differences in the value.

12 Different perceptions of the risk profile of  
13 products. With more complex products, the greater number  
14 of variables can lead to significantly different  
15 perceptions of the risks.

16 And certainly when we look at things that are  
17 traded -- are not capable of being traded to  
18 third-parties, you end up having to construct hypotheses  
19 and while the international and American standards set  
20 the objective of a market exchange and stipulate that  
21 unobservable inputs shall reflect the assumptions that  
22 market participants would make, there remains scope for

1 different views on these assumed inputs with a resulting  
2 effect in value.

3           We're also discovering there's a lack of guidance  
4 on the judgment necessary when deciding whether something  
5 is a level two or a level three input. That doesn't  
6 necessarily affect the value that's show. But what it  
7 does do is lead to people thinking that one firm's assets  
8 are of less worth than another one who'd be showing a  
9 level two.

10           Valuation standards can help and we're moving  
11 into the area of financial instrument standards. We  
12 won't solve all the problems, what we're trying to do is  
13 narrow the variation. This won't come down to three  
14 decimal places of agreement, it's going to be a case of,  
15 can we narrow these rather large variations that exist?

16           Some have already been helped by better controls  
17 within the banks. Regulatory supervision has helped with  
18 that a lot, they don't just simply take traders numbers,  
19 they now have controls at the back.

20           But common standards will increase transparency  
21 and help those relying on the numbers better understand  
22 them, which in turn builds market confidence.

1           We can't make a hard to value asset easy to value  
2 but we can show better disclosures and highlight any  
3 material uncertainties.

4           Developing more detailed guidance will help the  
5 consistent application of fair value and while, for  
6 example, IFRS set required criteria for valuation  
7 measurements, they don't address how these criteria  
8 should be used.

9           And that's traditional. The accounting standard  
10 setter says when a value should be used and the form of  
11 that value. The valuation profession is to tell you how  
12 to get there and that is what we're trying to do now.

13           What we have to do is look at the strengths of  
14 various models, how they should be calibrated, what  
15 inputs should be selected and this, we hope, will be  
16 helpful to auditors in how we actually look at the fair  
17 value estimates that are being produced and help improve  
18 therefore, both the quality of the audit and the  
19 financial statements in general.

20           What we intend to do in the new year is to hold  
21 a roundtable where we get the industry together --  
22 auditors, financial institutions, regulators, valuation



1 professionals, and can we agree to market consensus on  
2 what is unacceptable and what is acceptable.

3 Can we eliminate some models? Can we come to  
4 more common assumptions that can be used? Do you  
5 extrapolate when the data runs out or do you flatline it  
6 even, to make a big difference? Can we agree on these  
7 sort of things? And if we can, then the idea is to set  
8 up this task force and try and come forward with more  
9 robust fair value standards for the valuation profession.

10 A long way to go -- I sympathize with the  
11 auditors. I found their academic colleagues data very  
12 interesting and I fully sympathize with role that the  
13 PCAOB has in trying to narrow this down.

14 Thanks, Marty.

15 MR. BAUMANN: Thanks very much, Sir David.

16 I see a card up, Mike, did you want to make your  
17 point right now?

18 MR. GALLAGHER: Sure, Marty. I just want to  
19 applaud and associate myself with the comments made by  
20 Sir David.

21 And Jeff made the point earlier, about the  
22 importance of raising the game of the valuation

1 profession because, in all too many cases, given the wide  
2 range of professionalism and expertise, we do spend a lot  
3 of time in the audit profession fighting with so-called  
4 valuation experts that are not truly independent -- to  
5 Kevin's point earlier. Yet, they have, you know, the  
6 credibility of quote, unquote being valuation experts.

7         So, I think raising the level of performance, the  
8 minimum level of performance, and building the strength  
9 of that profession is a great thing.

10         A couple of other comments that I think -- you  
11 know, just the discussion we had earlier about root cause  
12 and kind of where we're going with the standard setting,  
13 Marty, I'm very supportive of standard setting.

14         I don't think there is a silver bullet here, but  
15 I think moving standard setting in the direction to  
16 minimize complexity or lessen complexity through one-stop  
17 shopping with a standard, and connecting it to the risk  
18 assessment standards, makes a lot of sense. So, I think  
19 that's a step in the right direction.

20         I also think that the point that a number of  
21 people have raised -- you know, because that addresses  
22 the execution in how the audits are performed today, but

1 it doesn't address the needs and wants of investors and  
2 I think that there is a great opportunity through the  
3 auditor's report and the expanded auditor's report to  
4 deal with that element because I think these are areas  
5 where we will definitely spend time speaking about them.

6           And then the last element, we had some discussion  
7 earlier about a range of acceptable answers that goes  
8 beyond the materiality. And we deal with that a lot in  
9 the audit profession and one of the ways that, you know,  
10 we deal with it is making sure that the processes are  
11 consistent from period to period.

12           It's okay to be in a range, but a lot of times,  
13 it's how you get there. And, you know, I've been  
14 involved in situations where companies have said, well,  
15 this is what -- this is how we're getting to the range  
16 in this quarter.

17           And the question comes up, well, that's different  
18 than where you were last quarter and why would you make  
19 that change given the fact -- if it's more positive, the  
20 only external evidence that would be ---- we would call  
21 triggering events, seem to go negative. Why would you,  
22 therefore, change it to be more positive?

1           So, it's a very complicated topic and I think  
2 there's a lot of moving parts in terms of disclosure, in  
3 terms of outside service providers that are,  
4 unfortunately, beyond the PCAOB's control but are very  
5 important to how we do our work.

6           But, at the end of the day, it's, you know, how  
7 we execute, how we challenge -- the degree of the  
8 professional skepticism. I love the point about  
9 reinforcing that in the standard.

10          So, hopefully, again, you know, collectively, the  
11 comments that were made this morning and then Sir David's  
12 point about lifting the level of performance in the  
13 valuation space is, I think, critical to the financial  
14 reporting as we move forward.

15          So, thank you.

16          MR. BAUMANN: Thanks, Mike, for those very  
17 helpful comments.

18          Thank you, Sir David, and let's move to Matt  
19 Brodin.

20          MR. BRODIN: Good afternoon, thank you for having  
21 me.

22          In terms of Interactive Data, you know, creating

1 evaluations, we create just about 2.7 million evaluations  
2 each day globally. That represents about 135 different  
3 countries and about 50 different currencies. With an  
4 average of about just over 200 evaluation staff that  
5 evaluate these securities.

6           And the years of experience where we speak about  
7 understanding the securities, the years of experience --  
8 20 years plus in the industry and just about nine years,  
9 10 years experience creating evaluations, so these are  
10 professionals that know the marketplace, know the  
11 securities.

12           So, in terms of defining what our evaluation  
13 represents. Our evaluation represents a good-faith  
14 opinion, a sort hold or received narrowly transaction,  
15 typically a institutionally-sized round lot under current  
16 market conditions.

17           So within a fixed income world, the outstanding  
18 debt. There's only about one percent that trades --  
19 estimated one percent trades, in any given day. So our  
20 processes, our procedures, our systems and our evaluators  
21 are all geared around digesting that market information,  
22 those inputs, and then taking that market information and

1 extrapolating it out to price securities with similar  
2 attributes. So, we look to maximize the use of relevant  
3 observable market information.

4         So, let's speak about the inputs that go into the  
5 evaluation process. You have trade information that gets  
6 reported publically ---- both MSRB and TRACE for munis  
7 and corporates. You also have some structured trades  
8 that are starting to report in via FINRA, via TRACE.  
9 There's still more to come on that.

10         Absent and retrade information -- there's a large  
11 amount of market information that's sent around the  
12 street as, you know, quotes, bids, offers, dealer  
13 inventories, results of bid wanted lists. These are all  
14 what we call price discovery points, so the securities  
15 aren't transacting, but their communication of prices for  
16 the securities that are in question or the securities  
17 that are out there in the marketplace.

18         So, Interactive Data over the last couple of  
19 years has really invested a lot of money and a lot of  
20 time into creating systems to help absorb this market  
21 information in a more efficient manner.

22         Right now, you know, we've rolled out some new

1 systems. One of the biggest things we rolled out is  
2 putting governance around the use of market inputs. We  
3 created what we call inboxes, or market repository  
4 databases, where we're getting market information from  
5 the marketplace -- as I discussed earlier, the bids, the  
6 votes, the trades and so forth.

7       We have software in place that reads this market  
8 information, puts it into a database, wraps it up with  
9 some reference data or performance data or attribute data  
10 so you can do sophisticated searches through that market  
11 information, helping the evaluator do his job.

12       But then we also created controls around the use  
13 of that market information. Instead of the old paradigm  
14 where evaluators used to go looking for that information  
15 on the platforms or in their email boxes, now that the  
16 information is in our market repository databases, it  
17 gets pushed in front of them into their models.

18       And we're creating controls around the use of  
19 that market information, so we know when the evaluator  
20 is using it and when he's looking at it and how he's  
21 incorporating into his or her evaluation.

22       So there's been a lot of money over the last

1 couple of years in changing the workflow of the  
2 evaluation and in managing the data that we used in the  
3 evaluation process.

4       These systems, while we employ them, are really  
5 there to design -- they're not as a model where the --  
6 you know, where you're going to run Monte Carlo scenarios  
7 or lattice projections. These models are really there  
8 for tools to help us group the securities together by  
9 similar attributes, all the asset classes have different  
10 attributes that are going to be honed in on.

11       And once we've created those categories of  
12 securities, now as we get that market information, we can  
13 take it and extrapolate it out to price those securities  
14 with similar attributes.

15       So, you know, the question always comes down is,  
16 how do you value 2.7 million securities on, you know,  
17 each day leveraging 200 evaluators? And that's the  
18 efficiency of these systems.

19       A lot of times, the evaluators don't have to look  
20 at each individual security because they just have to  
21 look at an issue or curve, or a use of proceeds, or  
22 sector curve for municipal bonds, or a specific category



1 within a structured arena in the MBS world.

2           So, there -- you know, therein lies a chance  
3 where an evaluator can put this market information in,  
4 create what we call an issuer curve and then price a  
5 couple hundred bonds off of that curve and he doesn't  
6 have to look at each individual bond.

7           There are instances where we do have to look at  
8 each individual bond. High yield sectors is an example  
9 of that, where each of those credits trade individually,  
10 so we obtain market information for each one of those  
11 bonds.

12           But where we can employ the efficiencies of  
13 models and systems, we will do that to create the  
14 evaluations in an efficient fashion. And that's what  
15 we've been spending our time and money on over the last  
16 couple of years, is putting governance around the  
17 evaluation process ---- on the use of market information  
18 in creating reports so that management can see what  
19 market information the evaluator's obtaining, how he or  
20 she is using that and whether he or she acknowledges that  
21 information when they're creating their evaluation for  
22 that day.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           So, after -- you know, I'm not going to go  
2 through methodologies and how we do all the evaluations.  
3 I did that with the pricing task force a couple of years  
4 back.     But part of the process of creating the  
5 evaluations is now from the audit side ---- and our  
6 preparer's side, on transparency into the evaluation  
7 process.

8           We have also spent a lot of time and money  
9 creating one of our tools -- what we call Vantage, in  
10 which we are disclosing reference data, assumption data  
11 and market information that was used by the evaluator to  
12 prepare that data. Where the information is public, TRACE  
13 or MSRB, you can see the actual trade, you can see the  
14 transactions, you can see whether it was dealer buy or  
15 dealer sell, you can see the size and so forth. It's  
16 public information, we can present that.

17          For the proprietary information, the quotes, the  
18 results of the bid wanteds, the offers that we see in the  
19 marketplace. That's information that's proprietary to us,  
20 we can't display that information but we aggregate it  
21 where we can, where we have a couple points for a  
22 particular security, a couple price discovery points,

1 we'll create a graph so our clients -- the auditors can  
2 see that that trade information or that quote information  
3 compared to the evaluation we've prepared for that day.

4         So over the last couple of years, as we've  
5 created this transparency tool, clients have adopted it  
6 and put it in as part of their workflow in terms of  
7 testing the evaluations each day when they receive them.

8         So, you know, they will look at this information,  
9 review it and then create controls around it and also  
10 demonstrate to their auditors and management that they  
11 have taken the evaluations from Interactive Data,  
12 reviewed it and have tested it.

13         Also, a part of ---- you know, over the last  
14 couple of years, you know, speaking about changes, we --  
15 you know, clients engage us in what we call due diligence  
16 practices. They come in, they come into the floor, they  
17 come into Interactive Data, they look, they speak to the  
18 evaluators. And we go through, usually, an hour and a  
19 half, two hours of discussions, methodologies, how we do  
20 things, what we do, what our process and procedures are,  
21 what our controls are, what our QC efforts are. We speak  
22 about all that.

1           We also demonstrate to them and they sit with the  
2 evaluators, they get to see the models, how the models  
3 work, what controls they have in the models so they get  
4 a feel for what the evaluators are doing each day.

5           We're spending more and more time educating  
6 clients on that because they have to understand, in the  
7 end, how we're creating our evaluations, what market data  
8 we're doing, how we're absorbing that market data, what  
9 kind of filters we use in the market data, because ----  
10 as I said earlier, we created institutional round lot  
11 evaluation.

12           There's a lot of trades that go out there, you  
13 know, off what we call odd lots, you know, got to make  
14 sure we have filters in there so we don't reflect some  
15 of that information.

16           Along with the due diligence meetings when  
17 clients come into us, they also spend -- the Boards are  
18 also spending more time with us. We're doing a lot more  
19 Board presentations over the last couple of years.  
20 Boards want to understand their third-party. How we're  
21 creating the evaluations -- you know, at a higher level,  
22 what controls we have in place, how does their pricing

1 committee interact with Interactive Data, what controls  
2 do we see from them?

3           So, we have been spending a lot of time educating  
4 both the Boards, both our clients and then also from the  
5 auditor's perspective.

6           Auditors come in for their annual due diligence.  
7 They usually spend a little bit more time with us. We  
8 roll up our sleeves, we go through the models, we go  
9 through the methodology. We go through showing them how  
10 we create our evaluations, they test some of our tests  
11 and some of our controls.

12           I'll stop right there and I'll also say we do  
13 have an SSAE 16 program in place around the evaluation  
14 process and we look to build on that in the future. So,  
15 you know, that's demonstrating some of the controls that  
16 we do have in place and they do get tested.

17           Also, part of the -- you know, with the auditors  
18 interaction, while they do come to us on an annual basis  
19 for due diligence, throughout the year we get questions  
20 as their doing audits. They're questioning the  
21 evaluations, they're questioning what market information  
22 we have. Sometimes they have market information that we

1 don't have, sometimes we can share market information.

2           So, there's a lot of interaction between us,  
3 between our clients, between our auditors in the end.

4           When I was asked to come here and present, it was  
5 really about what's happened over the last couple of  
6 years and, you know, that's some of the things that we've  
7 experienced on the Interactive Data side.

8           But the marketplace is evolving, it's evolving  
9 fast. It's probably evolved faster in the last three  
10 years than it has in the last 20 years I've been at  
11 Interactive Data.

12           Clients, the marketplace, everyone's using  
13 technology better, faster and categorizing the  
14 information and being able to demonstrate that they have  
15 the information for the evaluation to support the  
16 evaluation.

17           Also, transparency. As I said earlier, we created  
18 a tool getting this market information out to our  
19 clients. We have a web portal in which you can see the  
20 information but we've also created downloads, in which  
21 you can download this market information onto  
22 spreadsheets.

1 Clients and auditors are looking for as much  
2 information as possible when they're doing their -- when  
3 they're doing their reviews.

4 We also put in place, or we're starting to put in  
5 place a validation work pit so our clients can actually  
6 put controls in place when they receive our information,  
7 to look for outliers or look for securities -- you know,  
8 looking for exceptions within the data that they're  
9 receiving from us and putting a controlled environment  
10 around that.

11 So when they received the information in the  
12 past, a lot of times they would look at -- they would  
13 have spreadsheets and they would pass the spreadsheets  
14 around and now we're creating a platform which is  
15 auditable and if you go in there and change the  
16 information, they can see what actually happens with --  
17 in the receipt of that market information.

18 So you can see, as we roll forward, as the market  
19 evolves, technology is being used more and more.  
20 Transparency is becoming more evident.

21 But within a fixed income world, it's an over the  
22 market counter place. As I said earlier, it's a hard and

1 it's a complex world. There's a lot of securities out  
2 there, a lot of times these securities have individual  
3 attributes and there's a lot of unique characteristics.

4       A lot of times, two securities, while they may  
5 look alike, they may have a little bit different  
6 attributes or different, you know, covenants around them,  
7 so they will not be exactly the same.

8       And as I said, within the fixed income world,  
9 just about one percent trades in any given day. So  
10 there's, you know ---- it's a fixed income world. It's  
11 the nature of the beast that these securities are buy and  
12 hold type assets. They don't trade often -- doesn't make  
13 them illiquid but they don't trade that often because  
14 they go into portfolios and they're part of a portfolio  
15 and they usually stay in those portfolios.

16       Some securities can go in portfolios and never  
17 trade. Some securities will trade, you know, as soon as  
18 they come out the prior market, they'll trade for the  
19 first couple of days, first couple of weeks, they'll find  
20 a home and they'll stay there for the rest of their lives  
21 and, you know, they'll just take out. So, just because  
22 a security doesn't trade doesn't mean it's not observable



1 or illiquid.

2           But -- by the methods that we employ, by looking  
3 at the securities attributes and obtaining market  
4 information with similar attributes, we're able to price  
5 that 2.7 million securities off what that market  
6 information we do see, but we can't make market  
7 information up.

8           As transparency comes into the marketplace, as  
9 more structured securities are being released through  
10 FINRA. I believe spring of this year, some of the  
11 consumer ABS securities will start being posted, some of  
12 those trades will be available in the marketplace, there  
13 will be more transparency.

14           But it's a very big world, it's a very complex  
15 world and understanding that in conquering this -- you  
16 know, as we build transparency into the process, it's not  
17 like an equity, where you can go the exchange and you can  
18 see the security transact each day.

19           You've got to go do your homework. You've got to  
20 get as much information as you can find, have the  
21 expertise within the evaluation staff to understand how  
22 the marketplace works, have the systems in place and the

1 governance in place that you are getting this market  
2 information, reviewing it and then, at the end of the  
3 day, the quality control in looking at this information  
4 and getting it out to our clients.

5           And then also the feedback from the clients --  
6 that was another key point I want to make to the Board,  
7 is there's a challenge process. It's an over the counter  
8 marketplace. We can't say we see every trade out there.

9           As clients see market information, they will, you  
10 know, alert to us to it sometimes via the challenge  
11 process and challenge our evaluations. We'll take a look  
12 at that market information. We'll validate that market  
13 information, making sure that it is valid information,  
14 and then we'll take an action. Whether we adjust the  
15 security or we affirm the security, we'll get back to the  
16 client with the reaction to that.

17           So, you know, that also is -- as a client is  
18 taking this market information from us, they're testing  
19 it with the information they're seeing. So it creates  
20 that great feedback loop when we create these evaluations  
21 each day, clients are looking at the information and more  
22 and more, over the last couple of years, we're seeing a

1 lot more of that.

2           We're seeing the clients testing the evaluations,  
3 asking the questions, getting on phone calls, describing  
4 as we do things. So in the end, everybody is getting  
5 smarter -- there's still a long way to go, but everybody  
6 is getting smarter in using and receiving this market  
7 information.

8           MR. BAUMANN: Matt, thanks for those comments.  
9 They're very, very helpful.

10           Chairman Doty?

11           MR. DOTY: Matt, you're going to realize quickly  
12 that you're speaking to the lowest common denominator of  
13 understanding and intelligence in the room here. And we  
14 are, at the PCAOB, deeply interested in data.

15           Listening to it though I wonder if, in the effort  
16 to know whether the models you're building and the data  
17 as you're using it works ---- whether we're not in need  
18 of some check insight into your proprietorial process  
19 that is not yours.

20           I'm thinking of the drug industry. In other  
21 words, is there anything, or are we lacking in this, for  
22 the protection of audit committees and users and auditors

1 -- are we lacking in this some check by others who are  
2 not interested in the sale of the models and the use of  
3 the models, and have you thought of building that into  
4 your industry, into your commercial model in a way that  
5 can nevertheless protect the proprietorial nature of the  
6 data?

7           What I'm hearing is a very sophisticated and  
8 highly designed system that is going to resemble a black  
9 box to many audit committees or even auditors who are as  
10 uninitiated and unsophisticated as I am.

11           So, how do you get assurance that the model has  
12 been adequately tested, that it works and someone is  
13 asking questions of it who might find a contradiction in  
14 it?

15           MR. BRODIN: So, in terms of the model, yes --  
16 getting the idea that it's not a black box because  
17 ultimately, the end game, we see this market information,  
18 we observe market information, we know the range, we've  
19 spoken about this earlier, we know the range of the  
20 evaluation in which we want to get to.

21           So, it's not a circumstance where the security  
22 we're looking at, we don't know what it's worth and we

1 run a whole bunch of net present value paths out and run  
2 the different -- a bunch of interest rate paths then we  
3 look to see what the effect is on those securities.

4       As we are a market to market evaluation service,  
5 we know the market information, we see the market  
6 information, we know the basic level or the range in  
7 which we want to create the evaluation for.

8       So when we look at our evaluations and we're  
9 creating them, the quality control check is around,  
10 here's the observable market information, here's all the  
11 securities that look like it. Are they priced close to  
12 that observable market information? Are they within that  
13 range? Is it relatively acceptable?

14       Because we know where we're going with these  
15 evaluations because we see the observable information.

16       So, in terms of testing the models, I want to say  
17 they get tested each day because as we're creating our  
18 evaluations each night and each day, there's trades that  
19 are going off and we're looking to see, as those trades  
20 or as that market information comes in, is our model  
21 performing to where that information is coming in at?

22       We also will do some back testing to see where,

1 historically, how has our processes performed as the  
2 trade information does come in. And it=s -- the numbers  
3 are relatively good, they're relatively high in terms of  
4 how the models perform.

5 But, as I said earlier, a lot of times, it's not  
6 a black box, we're running different kinds of interest  
7 rate scenarios and Black-Scholes models to value these  
8 securities. We do leverage it for our structured  
9 securities because you're going to want to see the  
10 structured securities= sensitivity to interest rate paths  
11 and prepayments, but we use it to group the securities  
12 together when we create the evaluations.

13 So we will run these paths and we'll look at the  
14 securities= sensitivity but ultimately, in the end, we  
15 know the security that traded here. We know what the  
16 security=s sensitivity is to interest rate paths. This  
17 security that we have in question that we haven't seen  
18 the market data on looks exactly like this one. Hey,  
19 that security's going to be priced relatively close to  
20 that.

21 So we do employ pretty sophisticated models but  
22 ultimately, in the end, we know the range of the

1 evaluation in which we're going to.

2           And clients can come in and they can see our  
3 models, they can look at our models. We'll run the  
4 calculations for them, we'll show how the evaluations are  
5 created, the spread information that we're using and so  
6 forth. So, we're pretty transparent in that.

7           If a client's going to want to come in and see  
8 the code and how the code is working, you know, that  
9 might be one step too far because I don't even understand  
10 that in terms of how the code was written and the true  
11 underlying mathematics.

12           But having a sense for how the model works and  
13 how the information is employed -- the inputs, how the  
14 information is employed and extrapolating out would be  
15 the great understanding -- would be the, you know, the  
16 understanding that the client should have.

17           MR. BAUMANN: My comment is going to be a little  
18 bit of a follow-on to Doty's question to you.

19           And that is ---- so we'd see up in our staff  
20 consultation paper the fact that we think that our  
21 standard would have to address third-party pricing  
22 sources, and we appreciate all of your participation in

1 that task force a while back and here today.

2 But given what you've just said that there's  
3 something like 2.7 million fixed income securities and  
4 only one percent trade on any given day, we're talking  
5 about a lot of level two securities where auditors can't  
6 see an active price, for purposes of audit procedures.

7 So therefore, in our staff consultation paper, we  
8 did ask for ---- specifically for comment in this area.  
9 And so we'd love to hear from auditors and other users  
10 of pricing services about your ability to use these  
11 pricing sources, the transparency of the process to you,  
12 your ability to recalculate values based upon the  
13 information that's made available to you from the pricing  
14 sources, as well as the information that's not made  
15 available to you, which Matt just indicated some codes  
16 and certain things that are proprietary, and to what  
17 extent does that limit uses of these sources from  
18 actually really understanding how securities were valued.

19 So this is a very, very important area to us.  
20 Arnold indicated, as well, that the applicable ISA  
21 doesn't have guidance right now with respect to pricing  
22 services and this is just very important for us to get



1 in there. But we really need to hear from commenters  
2 about their view on the transparency and ability to  
3 recalculate values based upon that data.

4 MS. VANICH: And if could just add to Marty's  
5 remarks --- I mean if there's one thing I've learned  
6 about pricing providers over the last few years, it's  
7 that while there are similarities, there were certainly  
8 differences. And so we would also be interested in how  
9 you view, say the IDC model, versus challenges you face  
10 with maybe how others construct pricing.

11 MR. BAUMANN: Tom Selling?

12 MR. SELLING: Preliminary observation and a few  
13 questions. I have the same caveat as Jim, I hope I don't  
14 completely reveal my ignorance here. And also, I'm not  
15 even sure if the questions I'm asking aren't similar to  
16 what Marty has asked.

17 The observation is that the accounting standards  
18 have conceptualized current value as a non-distressed  
19 exit price. And as David Tweedie explained, this can  
20 create great problems for financial -- for valuation of  
21 financial instruments when markets are inactive because  
22 there are no willing buyers.

1           So my question for you, and again, I apologize if  
2 this is naive -- the valuations that you're describing,  
3 what do they represent? Do they represent -- do they  
4 meet the accounting definition of fair value? Do you  
5 ordinarily make a distinction between how much it would  
6 cost to buy versus how much or the price you would  
7 receive to sell? Or perhaps in the extreme -- in the  
8 absence of willing buyers, do your models actually  
9 perform?

10           MR. BRODIN: The evaluation represents an exit  
11 price -- so if it's arms length transaction, if you had  
12 to exit that position in the normal amount of time,  
13 that's what our evaluation represents, from the  
14 observable information we're seeing.

15           In thinly traded markets, if you roll back the  
16 calendar back in 2007, while liquidity did dry up and the  
17 securities -- especially in the structured world, there  
18 was less trading activity, we were still able to observe  
19 market information that we were able to create our  
20 evaluation process.

21           Ultimately, in the end, if there was an instance  
22 where there was no market information for us to build our

1 opinions of value, we would ---- you know, work with our  
2 clients, alert our clients but we would stop the  
3 evaluation process because we're always going to look to  
4 see from market information as we are a market to market  
5 evaluation service, we need the market information to  
6 support our evaluations and we're always going to look  
7 for that information.

8           MR. SELLING: One of the other reasons I'm asking  
9 the question is because -- so it sounds like in an  
10 extreme case, exit prices ---- replacement cost actually  
11 might work better than exit prices because if there were  
12 no willing buyers, that doesn't mean that you couldn't  
13 go out and buy something yourself at some price. Am I  
14 making sense?

15           MR. BRODIN: I understand. But then, that  
16 wouldn't make -- there wouldn't be a marketplace at that  
17 stage of the game if there was no willing buyers or  
18 sellers, so we would consider that to be a locked market  
19 and that wouldn't be information for us to build our  
20 evaluations off of.

21           So, we're not going to fair value to an intrinsic  
22 value for what we think it's worth, we're always going

1 to need that market information to support our  
2 evaluation.

3 MR. SELLING: Okay, thanks.

4 MR. BAUMANN: Thanks. Wayne Kolins?

5 MR. KOLINS: Two thoughts. One, I think in the  
6 last few years, the transparency has increased  
7 substantially over what it was before.

8 We found that, in many instances though, the type  
9 of data that is provided is probably only understandable  
10 by specialists, or much more understandable by  
11 specialists. And quite often, the firms use their own  
12 specialists to come up with pricing that we compare with  
13 the pricing that the service -- that the issuer comes up  
14 with and explore variations, sometimes challenge the  
15 variation.

16 I was wondering, and this is a follow-on to Jim  
17 Doty's question, I think, that have you considered -- has  
18 your company considered issuing a report on the processes  
19 and controls, you know, a so-called service organization  
20 report, that could be publically available in the  
21 marketplace that I think could mitigate some of the  
22 concerns about transparency, in terms of auditors

1 understanding assumptions and needing to understand the  
2 assumptions and the inputs?

3 MR. BRODIN: As I said earlier, we do have an  
4 SSAE 16 available for some of our processes and  
5 procedures. We are building on that to cover more of our  
6 asset classes.

7 You know, you can put controls and service  
8 reports around the receipt of the market information, how  
9 you're incorporating it, but, ultimately, there's a  
10 judgment that comes into play and it'd be very hard for  
11 you to put boundaries on that judgment because it's a  
12 human intervention that's coming into making a decision  
13 how he or she is looking at the marketplace and  
14 interpreting it.

15 So, you can control the information coming in,  
16 you could put controls and tests around the receipt of  
17 the market information, and then on the outbound side,  
18 you could have controls in the tolerance about how those  
19 securities have changed and so forth. But there's that  
20 judgment piece in the middle that would be the hard part,  
21 the assessment.

22 You know, there have been attempts and are

1 attempts to use algorithms and use models to do that  
2 judgment piece with limited success.

3           Ultimately, in this very dynamic world that we're  
4 living in, it's very hard to create a model or teach a  
5 model fast enough to have the market -- to have the  
6 securities responding to different interest rate  
7 environments or, you know, if a government program kicks  
8 in, the model doesn't know that. You need a human in  
9 there and you need a person in there that knowing what's  
10 going to happen in the marketplace and knowing what, you  
11 know, what was just brought to the marketplace, how  
12 that's going to affect the securities.

13           So, yes, you can for the beginnings and the ends,  
14 but that judgment piece in the middle, you're going to  
15 have to leave that open.

16           But, ultimately, in the end, we've found, you  
17 know, with the work we're doing and the government's  
18 reporting around our evaluation process, as we're  
19 beginning more efficient in digesting this market  
20 information, the quality evaluations are getting better  
21 because we have controls around the inbound information  
22 and we have controls around -- the quality controls

1 around the outbound when we create the evaluations  
2 looking at securities with similar attributes and making  
3 sure we made the adjustment to the appropriate  
4 securities.

5 But, there's always that judgment piece in the  
6 middle that you can't wrap into any kind of service  
7 report.

8 MR. BAUMANN: There's a great degree of analogy  
9 to the rating agencies in terms of, you know,  
10 understanding the assurance that people are looking for  
11 from what's being done in your organizations, yours and  
12 others, so that people can be comfortable that the values  
13 they're getting are accurate and reliable. So,  
14 especially to the extent that there's some proprietary  
15 aspect to it.

16 There's great interest in this topic. Mike  
17 Gallagher has his card up, let's take Mike and then let's  
18 go on to Alan Meder.

19 MR. GALLAGHER: Thanks, Marty, and thank you,  
20 Matt.

21 And I had the pleasure of working with you on the  
22 pricing services taskforce and I have some recollection

1 of some of our meetings there, enough to ask a basic  
2 question.

3           It's just capacity, depending on where standard  
4 setting goes on this and your capacity to potentially to  
5 go deep dive, how many deep dives can you, you know, will  
6 you go on tilt if every auditor under the sun comes to  
7 you and, you know, CUSIP number by CUSIP number in level  
8 two, given all the securities that Marty had mentioned  
9 earlier, I mean, where does your capacity -- do you have  
10 any concerns about where standard setting will go  
11 relative to your capacity to respond to the marketplace?

12           MR. BRODIN: You know, that question was asked  
13 during the pricing taskforce, if we had to do a deep dive  
14 for everyone of our 2.7 million securities each day, I  
15 think it would be overwhelming for us to satisfy that  
16 need.

17           In terms of our transparency and the tools that  
18 we've created, we do have the ability to download  
19 assumption data, download reference data and be able to  
20 download some trade information for that particular  
21 security.

22           And, you know, there are algorithms in place to



1 draw -- where we can actually have the security in  
2 question and have comparable securities where we see  
3 market information.

4 But, ultimately, in the end, the auditor, the  
5 preparer, they have to understand this. As we've been  
6 talking all along, some of this information, if you don't  
7 know the fixed income marketplace, you're not going to  
8 understand, you know, when we talk about prepayments  
9 being voluntary and involuntary, severities and all that  
10 and how that affects the security. You're going to need  
11 to understand that.

12 But, no, to the question on doing a deep dive on  
13 every security. But, we do have the ability to get you  
14 underlying assumption data and reference data off of the  
15 securities that we do create.

16 MR. BAUMANN: It would be great to have any  
17 written comments you want to submit, as well, for the  
18 record as we're doing in our standard setting, so, thanks  
19 a lot.

20 MR. BRODIN: We plan on submitting.

21 MR. BAUMANN: Thank you, thank you very much.

22 Alan?

1 MR. MEDER: Thanks, Marty.

2 Rather than give this presentation from the  
3 perspective of a preparer, for myself -- I'm a Chief  
4 Financial Officer of several investment companies -- or  
5 I could have given this presentation as a Chief Risk  
6 Officer.

7 I thought it would be more interesting for you  
8 all to look at this topic through the eyes of a financial  
9 analyst. And I have a number of internal developments  
10 that I want to highlight and then I'll move on and talk  
11 about some more board industry developments that I came  
12 across in my review of this material.

13 So, I'll start with just some brief comments on  
14 accounting estimates from the perspective of financial  
15 analysts.

16 Financial analysts really love accounting  
17 estimates. This is the closest thing they have to the  
18 Full Employment Act. And you can't really see it on the  
19 chart, but they're always looking behind the estimates,  
20 they're trying to see what management may be hiding, what  
21 gaps there may be between accounting impairment and  
22 economic impairment, as an example.

1 But for this discussion, I'm not trying to train  
2 you. These are training slides, we use them to train the  
3 young analysts who, some of which, want to become  
4 portfolio managers. They want to live with these risks  
5 and the valuation problems each and every day.

6 But, what's important to me is the parallel  
7 discussion that I seem to have with analysts, they'll  
8 point out that companies management teams control the  
9 estimates and then these estimates are quite unilateral  
10 and then what happens is that these very same analysts  
11 take these estimates and, in a unilateral fashion, adjust  
12 their model and while they'll point to management and  
13 say, there's not enough communication surrounding the  
14 estimates, they, themselves, share very little  
15 information about what they're changing in their models.

16 So, as I bring them onto the valuation committee  
17 work that they're called to do as part of their mentoring  
18 process, I try to stress that they're going to need to  
19 adjust their style a little bit.

20 So, I start with this chart and I start talking  
21 about what's the difference between estimates and, say,  
22 fair value? And I stress the bilateral nature of fair

1 value. I talk about how buyers demand matters and that's  
2 why we show here a classic demand graph.

3 But, what's even more important is that I start  
4 to stress to them that they're going to have to  
5 communicate if they're going to participate in a candid  
6 way on the valuation committee. They're going to have  
7 to address risk factors, very specific risk factors in  
8 specific terms. And they're going to have to do more  
9 than just merely adjust their model.

10 So, this is the first internal development that  
11 I wanted to highlight from the analyst perspective and  
12 I think it has equal applicability for the industry is  
13 that, there's more discussion than ever before, certainly  
14 more than when I got in the business 30 years ago. But,  
15 I think as I'm hearing from other panelists, there's even  
16 more that's needed.

17 Another thing we talk about from an analyst  
18 perspective is that it is difficult for an analyst, it's  
19 difficult for everyone, to take qualitative risk  
20 information and to convert that into some quantitative  
21 impact.

22 And to ease their fear, their burden, all I can

1 simply do is give them homework, give them education and  
2 the chance for ongoing education.

3           I bring here just one article. This is a Nobel  
4 Prize for economics article, but here's some 1970  
5 research that tries to pull together qualitative factors  
6 and well as quantitative factors and I think that's  
7 what's important for us and it's the second development,  
8 internal development, but also industry wide development  
9 that I wanted to highlight and it's been discussed  
10 numerable times this morning.

11           Education, ongoing education really does matter.  
12 And this is a very difficult task, even for analysts.

13           I have one more slide here from the training  
14 deck, so to speak, and that's despite all the work we do  
15 to have analysts spend time thinking about relative  
16 prices and relative risks, very specific risks. You  
17 know, ultimately, it's very rare to find any two analysts  
18 agree on a point estimate.

19           Point estimates for us, and where we spend most  
20 of our time, is wondering where on the continuum, where  
21 in the probability distribution that's shown on that  
22 chart might this security price move today, tomorrow and

1 the next day and why.

2           And again, to keep encouraging the candid  
3 discussion and then I work -- I think about the work on  
4 the valuation committee, and what is the, perhaps, the  
5 point estimate that I'm always leery of that give us  
6 concern on a daily basis? And I would simply say, I  
7 would point to broker quotes.

8           I never get a broker quote that's a true  
9 commitment. I get broker quotes that, late in the day,  
10 I get whoever's on the desk that wants to give me a  
11 number and I really don't have a lot of confidence in  
12 them.

13           So, we spend a lot of time taking those inputs,  
14 applying, perhaps, old tools, tools that we have from  
15 third-parties such as performance attribution tools, and  
16 we take inputs from the market that we've built into,  
17 it's not big data, but data warehouses of some shape and  
18 size, and we use that data and we discuss that data and  
19 we try to come up with at least something that we can run  
20 and be skeptical with against the broker quote that we're  
21 receiving.

22           So, I would say that this is the third element

1 that I wanted to bring up as an internal development that  
2 use. And it's the application of tools and data in a  
3 consistent process. Maybe not a process that doesn't  
4 change over time, depending on how market conditions are  
5 changing, but a process nonetheless that we can really  
6 discuss in a candid basis.

7         So, beyond these internal developments that we've  
8 seen, I've also pulled together several broad, more  
9 externally focused developments that I wanted to  
10 highlight. Some of them have been already mentioned by  
11 the panelists today.

12         One of those is that valuation matters are now  
13 even reaching into the Board room. We had last year the  
14 SEC accuse some fund directors of not exercising proper  
15 oversight over a portfolio management team and some  
16 subprime mortgage assets that they had in the portfolio  
17 during the last crisis and those directors did settle  
18 with the SEC.

19         Another external development is, I would say, the  
20 providers, the price providers like IDC might be getting  
21 larger and more integrated but there are more price  
22 providers available than I've seen ever before.

1 Providers like Market, Harvest Investments, even  
2 Bloomberg's BVAL as an example.

3 And then you have EMMA on the muni side, TRACE,  
4 there are a lot of tools that are available. And that  
5 creates in and of itself two more developments. One is,  
6 again mentioned by Matt, I think the providers in a large  
7 extent are becoming much more transparent.

8 And secondarily, the vendors are posing agency  
9 risk and that means you have to exercise a lot more due  
10 diligence. You have to really ask them a lot more  
11 questions and we do that regularly with all of our  
12 vendors. And we also get secondary prices every month  
13 end to check our work.

14 Just a few more comments on more broad external  
15 developments. Illiquidity is just pervasive and it  
16 certainly has gotten worse in the last few years and I  
17 think in the near term, it's just it's something we're  
18 going to live with on the sell side and the buy side.

19 When you lose Lehman Brothers and Bear Stearns,  
20 you have just less institutions selling and when you have  
21 the proprietary trading desks and bank investment pools  
22 and portfolios shrinking, again, you have fewer



1 participants in the market.

2           There's a lot of reasons for illiquidity. The  
3 quantity of assets matter, quantity of the market volume  
4 matters, security structure matters, all these enter into  
5 the illiquidity framework.

6           And then I'll make one last comment. As opposed  
7 to what Sandy said earlier, we might not have a lot of  
8 CFA Institute members today and I've been a person who's  
9 given a lot of time to CFA Institute over the last 25  
10 years, but we have increasing numbers of candidates for  
11 the professional designation of the chartered financial  
12 analyst that are coming from folks in the valuation  
13 business from auditing firms and I think it's a very  
14 positive trend. And it certainly should help reduce the  
15 amount of incorrect, inappropriate, inconsistent  
16 assumptions, inappropriate models and just poor valuation  
17 methods in general.

18           So, I know we're behind so I'll stop there.

19           MR. BAUMANN: Alan, thanks a lot for those very  
20 insightful comments.

21           Seeing no cards up at this point in time, thanks  
22 to the panel. It was very, very informative on valuation

1 developments. I can see a great interest by all of us  
2 in that area as it's so fundamental to this auditing  
3 standard that we're dealing with.

4 Let me turn now to the next panel with respect to  
5 developments in financial reporting frameworks.

6 Obviously, we've heard a lot today already about  
7 the importance of accounting standards to the, you know,  
8 the auditing aspects of our project and a lot of  
9 discussion of measurement uncertainty and what should be  
10 disclosed and things of that nature.

11 So, we're really appreciative to have with us  
12 today Patrick Finnegan who's a Board Member with the  
13 International Accounting Standards Board. Pat is a  
14 former Director of the Financial Reporting Policy Group  
15 at CFA Institute and led a team responsible for providing  
16 user input into the standard setting activities of the  
17 IASB, FASB, and regulatory bodies. Thanks for being  
18 here, Pat.

19 And then also joining this panel is Larry Smith  
20 who regularly attends our SAG meetings and who's a Board  
21 Member at the FASB. Larry's had a long and distinguished  
22 career in accounting. Prior to his appointment to the

1 FASB Board, he served as FASB's Technical Director  
2 managing FASB's activities related to application and  
3 implementation issues and served as Chairman of its  
4 Emerging Issues Taskforce.

5           So, with that, Pat?

6           MR. FINNEGAN: Thank you, Marty. I'd like to say  
7 thanks to you and Barb for the opportunity to visit with  
8 the staff and the Board this afternoon.

9           And at this stage of the discussion, it's  
10 challenging to, I think, add anything terribly more  
11 illuminating or insightful about the discussion because  
12 I think a lot of the discussion so far has been quite  
13 good. So, in that spirit, I'll try to be incremental.

14           I tried to put myself in your shoes being a Board  
15 Member setting accounting standards and asked myself what  
16 is it I might want to hear and how it could be helpful  
17 in this process?

18           So, what I'm going to do is offer you a series of  
19 five very concrete recommendations as it relates to the  
20 consultation paper and then I'll relate some of those  
21 recommendations to a new accounting standard that the  
22 IASB published this summer, IFRS-9, which I'm sure many

1 of you are familiar with that deals with the financial  
2 reporting for financial instruments. And in particular,  
3 I'd like to touch on the impairment guidance that we  
4 developed in IFRS-9 and related to your consultation.

5         So, my first recommendation is simply to say that  
6 I strongly endorse the approach being considered by the  
7 staff. I think that the creation of a single standard  
8 that would align risk assessment standards and retain the  
9 approach that you have right now for substantive testing  
10 would be very beneficial.

11         And the reason I believe that is because I think  
12 audit procedures need to be clear, they need to be  
13 precise, they need to be comprehensive and anything that  
14 you do to improve the understandability of these  
15 procedures, I think, will be very well welcomed.

16         Now, that recommendation ties into my second  
17 observation and recommendation for you and I think it's  
18 borne out by the presence of the three gentlemen to my  
19 right here. And that is one of the most significant  
20 trends in the area of making estimates about fair value  
21 measurements over the last decade is the introduction and  
22 use of third-parties to develop those estimates.

1           And as we've heard this morning, complexity  
2           abounds in this area, particularly as it relates to the  
3           collection of data, the use of assumptions and then  
4           exercising judgment in applying that data and assumptions  
5           consistently, if you will, to various models.

6           So, what is the auditor need to do? I think it's  
7           very clear from Matt's comments, the auditor needs to  
8           have a clear understanding of what his organization does  
9           and that's no simple task.

10          There needs to be an emphasis on the evaluation  
11          of management bias. I think this is perhaps one of the  
12          most understated areas in the issue of coming up with  
13          fair value measurements and we've heard from Lisa and  
14          Jacqueline about the importance of this, and, obviously,  
15          evaluating data and assumptions consistently.

16          So, I strongly endorse the recommendations that  
17          the staff have on Pages 35, 40 and 41 without going into  
18          them in detail.

19          My third observation is a familiar one to all of  
20          us here around the table and I will entitle it the  
21          expectation gap and I think, Mike, you alluded to this  
22          and I think even Marty, you may have mentioned it.

1           By adopting a single set of principles and  
2 guidance in perhaps the most critical aspect of the  
3 auditor's work, I think the PCAOB will be sending a very  
4 strong signal to the marketplace that the accounting  
5 profession, that can help the accounting profession in  
6 two ways.

7           The first is with the recommendations I've just  
8 covered, improving understanding, clarity and consistency  
9 of audit work. But an equally important benefit here of  
10 adopting a single set of standards is to raise the level  
11 of awareness and understanding with managements to  
12 prepare the issuer community about their responsibility  
13 for coming up with estimates in financial statements.

14          Interestingly, you know, I continue to hear in my  
15 role as a standard setter, but in past roles as an  
16 analyst and as an auditor, the refrain from very, very  
17 experienced market professionals that the financial  
18 statements are the responsibility of Deloitte or PWC, not  
19 our responsibility. And I think these statements  
20 essentially reflect the lack of understanding and perhaps  
21 a gap in the understanding of what is, in fact, the role  
22 of the auditor.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           So, if you proceed with, you know, this process  
2 of developing a consolidated standard, I would greatly  
3 recommend that you coordinate it with an announcement by  
4 the SEC, whether it's the Commission itself or the staff,  
5 to emphasize the content and the importance of shared  
6 responsibilities here to ensure that management  
7 understands that it is their estimate and not the  
8 auditor's estimate.

9           My fourth recommendation drills down a little bit  
10 more into the paper itself and it deals with Question 25.  
11 And here, the staff is asking whether there are  
12 enhancements to the existing requirements for testing  
13 data used by management to develop the accounting  
14 estimate that the staff should consider.

15           And I have a very specific recommendation here  
16 that I believe is critical to an auditor getting a clear  
17 and comprehensive understanding of how values are  
18 assigned, particularly to complex financial instruments.

19           And this is based on my own experience as an  
20 auditor, but also in recent discussions I've had with  
21 people who are actually engaged in this process. And  
22 that is that the auditor should have access to and be

1 able to observe the investment committee process of any  
2 institution that is involved in assigning values to large  
3 numbers of financial instruments. So that would be  
4 insurance companies, banks, pension funds, endowment  
5 funds and what have you.

6 And they need to be able to observe management=s  
7 discussions and how they are evaluating and assigning  
8 valuations to these very complex instruments.

9 Now, the reality is, as I'm sure you know -- and  
10 I was in this position myself at one time -- that the  
11 task of looking at this process many times is assigned  
12 to somebody who's got anywhere from one month to maybe  
13 as many as five years of experience on the job. And  
14 they're reading a set of minutes about the investment  
15 process and they're being asked to evaluate and come to  
16 some conclusion about how robust it is and how consistent  
17 it is, et cetera.

18 And I think that process has to change. You need  
19 experienced people at the table watching the investment  
20 committee assign valuations.

21 My fifth recommendation deals with something that  
22 we've heard a lot and, Alan, you've touched on this this



1 morning and it has to deal with education and the  
2 experience of the auditor, and this is not a new issue  
3 but one I think that is taking on heightened importance.

4       The recommendation is a reminder that there's a  
5 close nexus between the knowledge and skills that you  
6 have to have in the area of evaluating accounting  
7 estimates and judgments and the need to have a deep  
8 understanding both of an industry and the financial  
9 reporting framework in which an auditor is evaluating.

10       And as I just said, we have to be honest, much of  
11 the work conducted in this area of evaluating very  
12 complex estimates is being conducted at a level on the  
13 audit, perhaps sometimes, with the least amount of  
14 professional experience and professional judgment.  
15 Although, many times, that's overridden by reviews by  
16 very senior people.

17       I believe in order to ensure that you have a high  
18 quality audit, you need people with significant amounts  
19 of experience. And if I'm correct and quoting Oscar  
20 Wilde who said that experience is nothing more than the  
21 name that we assign to the mistakes we make, unless  
22 you've made a number of mistakes in this area, you're

1 never going to get it right.

2           So, I would implore you to ensure that in order  
3 for this to be done right, you insist that it be done by  
4 people with the appropriate amount of responsibility and  
5 experience.

6           Now, I said I'd try to relate this to some of the  
7 work that we've done at the IASB in the area of  
8 assigning, or I should say, preparing guidance related  
9 to impairment of financial assets.

10           The model that we've adopted under IFRS-9 is what  
11 we'd like to refer to as a forward looking model. And  
12 one of the important changes that we've introduced into  
13 the accounting literature is the elimination of a  
14 threshold for the recognition of expected credit losses.

15           So, it's no longer necessary for management or an  
16 auditor to identify specific triggering event to say an  
17 impairment should be recognized.

18           And specifically, IFRS-9 requires an entity to  
19 base its measurement on expected credit losses using what  
20 we call all reasonable and supportable information based  
21 on past, current and expectations about what's likely to  
22 happen in the future. So, it imposed on management this

1 requirement to develop a forecast.

2           Now, I'm not going to go into or elaborate on the  
3 mechanics of exactly how IFRS-9 requires you to set an  
4 expected credit loss, but what I'd like to highlight here  
5 is that an auditor, in order for he or she to be  
6 effective in evaluating the judgments and estimates  
7 applied by management in the implementation and the  
8 ongoing application of the standard, there needs to be  
9 a significant amount of education. They're going to have  
10 to go to school in several areas.

11           The first area deals with just the core  
12 principles of credit analysis. In my opinion, this will  
13 involve developing a new set of skills to evaluate how  
14 credit risk has evolved and is trending by types of  
15 instruments, by credit class, by geography and collateral  
16 type, just to name a few parameters.

17           They'll also need to understand how credit risk  
18 changes in response to economic events as well as issuer  
19 specific events. And they will need to assess the  
20 quality of the systems used to monitor, to collect data  
21 and effective those systems are in capturing timely  
22 changes about credit quality.

1           So, as you can see, there's a wide range of  
2 judgments and estimates that are incumbent upon  
3 management and hence, the auditor, to evaluate the  
4 impairment allowance.

5           And I think you can safely make the assertion  
6 whether the measurement attribute is either fair value  
7 or it's an entity specific measurement, significant  
8 judgment comes into play.

9           So, in the final analysis, I think the auditor  
10 will need to have a deep understanding of the amounts  
11 recognized, how they were determined, whether the  
12 assumptions applied have a sound basis considering the  
13 outlook for economic environment and the past history of  
14 existing and existing market prices.

15           So, that concludes my formal remarks and I'd be  
16 happy to take your questions.

17           MR. BAUMANN: Thanks a lot for those formal  
18 remarks. I have a great team that's supporting this  
19 effort over here, but we'd love to have you on our  
20 drafting team if you have any free time, all right?

21           And I'd certainly be interested in, again, the  
22 comment letters that come in from various parties about

1 how this expected loss model works with the different  
2 independent estimate or testing management's process and  
3 does this present unique challenges when we're dealing  
4 with something like this model of impairment on expected  
5 losses, which is quite different than where we are today.

6           So, certainly want to hear about that as we're  
7 developing our auditing standard.

8           Steve Buller?

9           MR. BULLER: Thank you, Marty. Thank you, Pat,  
10 that was a very thoughtful discussion.

11           I just wanted to comment on one recommendation  
12 you made which was to observe the investment committee  
13 process.

14           And, only because in any company, there are many  
15 decisions that are made, including not just the valuation  
16 of investments, but during a committee like that, for  
17 example, that are also discussing possible new  
18 investments.

19           But, if you think about it, companies also have  
20 meetings on looking at loan loss reserves and tax  
21 reserves and contingencies and I'm not sure that it's  
22 appropriate to have the auditor involved in all those

1 discussions and if that's necessary to understand the  
2 internal controls and to perform an assessment of proper  
3 evaluation.

4 MR. FINNEGAN: When I made that recommendation,  
5 Steve, I actually had you in mind. I suspected that you  
6 might have that --

7 MR. BULLER: I'm not sure how to take that, Pat.

8 MR. FINNEGAN: --- you might have the reaction  
9 you did.

10 I think because it is such a sensitive area, it  
11 demonstrates the need for the auditor to be at the table.

12 MR. BAUMANN: Jeff Mahoney?

13 MR. MAHONEY: Thank you. Pat, just a question.  
14 Do you believe IFRS-9 makes the auditor's job more  
15 challenging or less challenging?

16 MR. FINNEGAN: I don't think it changes the job,  
17 to be quite honest with you, because I think if you're  
18 going to expect the auditor to opine on the amounts that  
19 are reported in the financial statements, you need to  
20 have accounting principles that are going to faithfully  
21 represent those amounts and drive towards that type of  
22 conclusion.

1           So, I think IFRS-9 advances the quality of  
2 financial reporting. Is it the model that I would have  
3 developed and chosen? You know very well that I'm a fair  
4 value proponent and would have a single measurement  
5 attribute if I were king, but that's not where we are.

6           But the reality is, is I think IFRS-9 goes a long  
7 way to improving, I think, the financial reporting that  
8 will be made available principally by financial  
9 institutions in the, you know, next several years.

10           MR. BAUMANN: Larry Smith?

11           MR. SMITH: Thanks, Marty. I approach this a  
12 little bit differently. First of all, let me offer the  
13 normal disclaimer. These are my views.

14           And I looked at the staff consultation paper from  
15 the perspective of my former life as an auditor and in  
16 reading it, while I agree with Pat's recommendation that  
17 it makes it a lot of sense to pull together a lot of the  
18 different aspects of the auditing literature so that  
19 people can see it in one spot in when they're evaluating  
20 accounting estimates or coming up with estimates.

21           I also agree with Mike Gallagher's comment that  
22 I don't think there is a silver bullet out there because

1 I don't think that doing so really introduces a dramatic  
2 change in auditing.

3       You know, from a practical standpoint, the  
4 consultation paper deals with the fundamentals of  
5 auditing and that is how to audit estimates and that's  
6 what auditing is all about is all about in my mind.

7       And it caused me to question, you know, the  
8 extent to which accounting has changed over the years and  
9 whether that's causing a change, a required change in the  
10 auditing literature.

11       So, I spent about ten minutes, literally ten  
12 minutes, and I developed a list of accounting estimates  
13 and they are as follows. And this is not all inclusive.

14       Depreciable lives of PP&E and intangibles. Under  
15 the old rules before 141 goodwill life; valuation of  
16 stock options; allocation of purchase price to acquired  
17 assets and liabilities in a purchase biz-com; inventory  
18 capitalization of costs and absorption both what you  
19 absorb, what costs you absorb and how you absorb them;  
20 inventory obsolescence; percentage of completion  
21 accounting; impairment of PP&E intangibles and goodwill;  
22 assessment of going concern; insurance companies

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)



1 liabilities; pension obligations; realizability of the  
2 deferred tax assets, other than temporary impairment of  
3 investments; accounts receivable allowance; loan loss  
4 provision for financial institutions; warranty reserves;  
5 prepaid card fees and breakage; revenue channel stuffing;  
6 revenue recognition from multi-element arrangements; loss  
7 contingencies both the probability of loss as well as the  
8 amount of a loss; evaluation of materiality; probability  
9 of correlation of a hedging instrument to a hedged item;  
10 residual values of leased equipments; salvaged values of  
11 PP&E; is an investee a VIE and if yes, who's the primary  
12 beneficiary and fair value estimates.

13           And then in terms of current standard setting  
14 activities, we have several topics on our agenda that  
15 might get into requiring accounting estimates.

16           One is financial instrument impairment, we're not  
17 finished like the IASB is; insurance target improvements  
18 to accounting for a long duration contracts both in terms  
19 of remeasurement of the liability and the discount rate;  
20 leases, if we decide to move from our current FAS 13  
21 distinguishing characteristics or criteria to an IAS 17  
22 model, that will cause more judgments and estimates;

1 clarifying the definition of a business; determining  
2 whether a host contract and a hybrid is more akin to debt  
3 or equity; and hedging.

4           So, it caused me to step back and ask questions,  
5 you know. Auditors have been auditing estimates forever  
6 and what is it that's causing a need for a new auditing  
7 standard today? Me defining that putting everything  
8 together is not a fundamental change.

9           Or, is it fair value estimates only that's really  
10 causing this demand? And if it is fair value estimates,  
11 what is it about fair value estimates that causes us to  
12 think that new auditing guidance is necessary?

13           Why are audit deficiencies so high? Are audit  
14 deficiencies higher for all types of estimates or is it  
15 just fair value?

16           And is it the accounting standards that are  
17 influencing the rate of deficiencies and the perceived  
18 need for a new auditing standard? Or, are there other  
19 factors out there such as, increase in litigation or a  
20 change in the regulatory environment, including the fear  
21 of being second guessed?

22           And getting personal about it, from an accounting

1 standards setters perspective, if it's the latter concern  
2 in terms of the environment in which people are reporting  
3 and auditing, what implications does that have for  
4 setting accounting standards?

5 MR. BAUMANN: Are you sure that was an exhaustive  
6 list of estimates? I can think of one or two more,  
7 amortization of deferred acquisition costs and as you  
8 know it.

9 Thanks very much. Comments? Questions? Kevin?

10 MR. REILLY: Yes, Marty and Larry, thank you for  
11 that exhaustive list because I think it does demonstrate  
12 a very important point and Bill Platt touched on it  
13 earlier this morning, and that is the playing field here  
14 is quite wide.

15 And I read with interest the paper where the  
16 tentative thinking was to develop a single standard that  
17 will cover all estimates, including fair value measures.

18 And I just have major concerns that we're trying  
19 to take everything in that wide playing field and fit it  
20 into a single box where we're dealing with economic type  
21 fair valuation measurements along with non-economic  
22 measurements such as warranty reserves. And I'm just

1 fearful that we create a standard that will end up  
2 crashing under its own weight.

3           So, I would ask that the staff and the Board  
4 consider perhaps an approach that would articulate some  
5 broader principles in the audit of estimates and fair  
6 value measures but then really think about some type of  
7 an approach where supplements are developed to deal with  
8 the use of pricing services or the expected audit  
9 procedures undertaken relative to revenue recognition  
10 which is an issue was talked about at the last meeting.

11           So, rather than try to create the aircraft  
12 carrier, let's try to deal with this in more digestible  
13 pieces to help drive longer term clarity in the standards  
14 and hope for improved audit performance.

15           MR. BAUMANN: Good points, thanks, Kevin. And  
16 Guy Jubb?

17           MR. JUBB: In responding to the question of what  
18 implications does it have for assessing accounting  
19 standards, perhaps we should -- the right question to ask  
20 is, what implications does it have for setting corporate  
21 reporting standards?

22           Because many of the aspects that we have been

1 discussing today are seeking to finesse a figure in our  
2 financial statements which, as we all recognize, has many  
3 variables associated with it and is not rather than a  
4 science.

5         We investors are putting increasing emphasis upon  
6 narrative reporting, management, MD&A, management  
7 commentary, in IASB speak.

8         And one of the things that the Board may wish to  
9 reflect on, but it's possibly already within its  
10 standards, is the degree to which auditors should give  
11 assurance and consider the completeness and clarity of  
12 the explanations that can be provided by management in  
13 the MD&A which can provide transparency for shareholders,  
14 for investors about some of the inherent risks which  
15 cannot be communicated in just numbers but can be  
16 communicated in words otherwise.

17         So, it's really to extend some of the debate from  
18 audit into assurance that is given to shareholders.

19         MR. BAUMANN: And I've heard a lot of comments  
20 today about or maybe I just heard them, but what's the  
21 role of accounting standards setters in trying to solve  
22 some of the problems that we're trying to solve around

1 this table today?

2           Through your long list of estimates and fair  
3 value measures, most of them have a range of measurement  
4 uncertainty. But yet, they get portrayed on the  
5 financial statements as one single number that the  
6 auditor has to report on that it's fairly presented.

7           When, in fact, there's a range of reasonableness  
8 from which that number is picked and whether there's a  
9 need for improved disclosure standards that would have  
10 more information in the footnotes about that measurement  
11 uncertainty and the range of potential acceptable  
12 outcomes for any of those particular estimates that would  
13 make it clearer to users that, yes, the management has  
14 selected one, a number, and that's their view of the best  
15 number, but other possible alternatives include for an  
16 X to Y and whether that would be a better financial  
17 reporting framework. But that's just my view.

18           Philip?

19           MR. JOHNSON: Thanks, Marty. It's really to  
20 support what Kevin was saying because one of the concerns  
21 I have because of the far -- we've heard from Larry how  
22 broad the spectrum is. And we've got to be very careful

1 that we don't -- we're not too prescriptive in what the  
2 auditor has to do because it is such a wide range and I  
3 very much support what Kevin was saying that we shouldn't  
4 move guidance into rules that have to be followed for  
5 this very wide spectrum.

6           So, I just think we have to be cautious as to how  
7 widely this proposed standard is drafted.

8           MR. BAUMANN: Walt Conn? We would like to hear  
9 from you.

10          MR. CONN: Thanks. Just a couple of thoughts.  
11 Can you hear me?

12          I very much support the effort to explore  
13 standard setting in this area and I would echo Mike  
14 Gallagher's comment that I think there is no silver  
15 bullet and I would echo Kevin's sentiment that I think  
16 you could bite off so much that it takes years and years  
17 to develop a standard that then auditors take years and  
18 years to absorb.

19          So, I think a challenge that the Board and staff  
20 and all of us collectively as we weigh in, should  
21 consider is how to bite off some of the issues and  
22 pieces.

1           And I thought Larry raised some really good  
2 questions. I thought he was going to answer them, but  
3 he didn't. And I think that the Board and staff and we  
4 collectively need to really pontificate on some of those  
5 questions and try to come up with answers to them to help  
6 inform the standard setting process.

7           MR. BAUMANN: Thanks for those comments, Walt.  
8 And, Tom Selling?

9           MR. SELLING: The first thing I thought of when  
10 Larry asked his list, was how many of these estimates do  
11 we really need?

12           And perhaps I should have kept that thought to  
13 myself but I raised my name card anyway because it does  
14 relate to our earlier discussions about the ability, you  
15 know, how do we get unbiased estimates and one way to get  
16 unbiased estimates is to focus on things that are drivers  
17 of market value or market drivers of valuations.

18           So, I took Larry's challenge and I made a quick  
19 list of things we don't need: impairment of goodwill,  
20 impairment of long lived assets, impairment of inventory,  
21 other than temporary impairment.

22           What is the functional currency?       What is



1 probable? What is more likely than not? What is a  
2 constructive obligation? What is a cost that is eligible  
3 for deferral? What is a self-constructed asset and what  
4 is not? Is an arrangement a lease or something else?  
5 Who is a customer and who is not? What is significant  
6 influence?

7 So, anyway that's my list.

8 MR. BAUMANN: Thanks, and Pat and Larry, thank  
9 you very much for your contribution to today's meeting,  
10 to our thought process and for giving us a lot to chew  
11 on in terms of our process going forward on the standard.

12 And thanks for SAG comments with respect to how  
13 that could play into our potential standard.

14 Let's take a 15 minute break. It's 3:00 or just  
15 about and let's be back at 3:15. Thanks.

16 (Whereupon, the above-entitled matter went off  
17 the record at 2:58 p.m. and went back on the record at  
18 3:19 p.m.)

19 MR. BAUMANN: Well, we have a very interesting  
20 panel coming up now. We've talked about auditing all day  
21 from a variety of perspectives, but now let's talk -- you  
22 can hear from the Audit Committee and from the auditors.

1           Specifically in the panel today is going to be  
2 Bob Herz, who's currently Executive-in-Residence at  
3 Columbia Business School, Columbia University, and is  
4 also a member of a number of very large boards.

5           Bob's extensive experience also includes serving  
6 as past chairman of the FASB, past board member of the  
7 IASB, and a past partner in a firm with me. We are  
8 fortunate to have Bob as a member of the SAG.

9           We also have on our panel Tom Omberg. Tom is  
10 Managing Partner of the professional practice at  
11 Deloitte. He has served in a number of leadership roles  
12 including leading the accounting, valuation, and  
13 securitization advisory services. Tom, thanks for being  
14 here.

15           And then we also have Jean Joy. Jean is the  
16 Director of Professional Practice and Director of  
17 Financial Institutions Practice at Wolf & Company. Jean  
18 is also a SAG member and a member of the Professional  
19 Practice Executive Committee of the Center for Audit  
20 Quality.

21           So we greatly look forward to the perspectives  
22 here now from the Audit Committee and the auditors on how

1 we should go about improving our standards in this area.

2 So, Bob?

3 MR. HERZ: Okay, thanks Marty, and my thanks to  
4 the PCAOB and Marty, Greg, and Barb for organizing this.  
5 I think it is a very, very important topic in moving the  
6 whole reporting system forward towards better and more  
7 relevant and trustworthy reporting.

8 I'm not going to cover all of this because some  
9 of it's already been discussed. I'm not going to go back  
10 through the history of the fair value pronouncements, but  
11 Marty and Barb, when we were on the call planning this,  
12 said it would be really good if you could share any kind  
13 of lessons learned or take-aways from all this,  
14 particularly the financial crisis.

15 And, of course, just like Sir David there, it  
16 gives us a great opportunity to reminisce about such a  
17 pleasant period in time, not just standard setting but  
18 for -- for all of us a very challenging time.

19 If you think about -- in the development of the  
20 fair value standard, we spent a lot of time on developing  
21 the different levels in the hierarchy and within that on  
22 level three, level three inputs in particular, there was

1 a lot of debate and gaining understanding of what was  
2 currently being done at that time by valuation experts,  
3 by pricing services, and auditors and very importantly  
4 by the issuers.

5           And one of the things I recollect from that time  
6 was that a number of parties said gee, you know, when you  
7 get to these unobservable inputs and hypothetical  
8 markets, we understand the objective, but it's going to  
9 be tough and we don't want people having to do a search  
10 and destroy mission to come up with things that are  
11 inherently going to be subjective and the like.

12           And so you'll see reflected in the actual  
13 standard, it's actual Paragraph 30 of the original  
14 standard; I'm not sure where it is in 820 anymore, but  
15 it kind of reflects a view that okay, we understand that  
16 and those situations by necessity management's going to  
17 have to come up with its best estimates of what it thinks  
18 market participants, hypothetical market participants,  
19 would be thinking.

20           But then it goes on to say however, if there's  
21 actual market data readily available or reasonably  
22 available with undue costs and effort, you shouldn't

1 ignore it and try and make adjustments.

2           There's also wording in the standard the basic  
3 definition of fair value that says it's the price you  
4 would receive for selling an asset in an orderly  
5 transaction, which is not a for sale, distress sale, or  
6 a liquidation.

7           Those all made a lot of sense until the financial  
8 crisis hit because what happened, of course, was that we  
9 had whole swaths of asset-backed securities and  
10 derivatives complicated instruments that were written and  
11 tied to all that, probably trillions of dollars of this  
12 that went from -- a lot of them essentially from being  
13 level one for which there was -- you could get -- there  
14 was activity and there were pricing quotes all that.

15           People were using that to value it to all of the  
16 sudden the trading went way down. In some cases, it  
17 seemed almost inactive or if there was trading you didn't  
18 know who was involved because there were no clearing  
19 mechanisms, there wasn't a lot of transparency, and so  
20 you had to -- people had to figure out -- people who  
21 really, you know, were not ready for this.

22           Because the level three valuations previously had

1 largely been done on intangibles and some structured  
2 long-dated type derivatives and the like for which there  
3 wasn't -- that were tailored and that weren't traded  
4 really.

5           But now you had these trillions of instruments  
6 that had been traded, not -- no longer very active  
7 trading, so that raised all the questions about well, is  
8 this an order -- if we do get a price somewhere we can  
9 find it. Is it an orderly transaction or was it a  
10 distress sale? What's going -- who's involved? You  
11 don't even know some of that.

12           Is the market sufficiently inactive now that we  
13 should stop looking for quotes or actual transactions and  
14 go more to a discounted cash flow type approach and try  
15 and figure out how you would estimate those cash flows  
16 and what interest rate you would take and the like.

17           And for some of these instruments because they  
18 emanated from these very complicated asset-backed  
19 securities trusts with all the waterfalls and all of  
20 that, you really needed a lot of expertise to unravel  
21 those.

22           And unlike for our corporate bond and equity

1 markets where we have put in periodic reporting to update  
2 things, there wasn't good current information on those  
3 things at all.

4         So, clearly, we were called upon to intervene  
5 there a number of times to provide kind of, you know, not  
6 only how-tos, but almost kind of safe harbors for it's  
7 okay in this circumstance to go to a discounted cash flow  
8 type valuation and here's kind of how you would do it and  
9 how you would pick the interest rate and things you would  
10 look for and all of that kind of thing.

11         So, from a standard setting point of view, one of  
12 my take-aways was that the wording counts and you've got  
13 to almost kind of think about unforeseen possibilities  
14 and the like.

15         I also think the definitions counted a lot in  
16 that, too. I think that there was a lot of stress in the  
17 system and you think about behavioral impact, so at the  
18 onset of the what was then called the credit crisis in  
19 late 2007, I remember the CAQ tried to put out a helpful  
20 white paper and it kind of dealt with this issue in  
21 Paragraph 30 that said yes, well, you just can't go  
22 automatically go to these management valuations.

1           There may be prices out there because the back  
2 end of the paragraph says you can't ignore information  
3 that's reasonably available and all that. Well, I  
4 remember I got lots of calls from CFOs, even CEOs, saying  
5 don't they understand how the market's not working now  
6 and all that and what is available and what isn't  
7 available and all of that.

8           But it was a very understandable behavioral  
9 reaction by the auditing profession who's put in that  
10 very difficult -- that difficult place in a difficult  
11 circumstance and the like.

12           And I think that was another kind of -- when I go  
13 beyond just whether it's the accounting literature or the  
14 auditing literature, if you think of the financial  
15 reporting system, it's like a supply chain. Lots of  
16 different people involved, the accounting standards, the  
17 auditing standards, obviously the companies, the audit  
18 committees, the investors and analysts and all that.

19           And you change something in one part of it and/or  
20 circumstances change, you get very interesting behavioral  
21 reactions and pressures on different parties in the  
22 system. Now, I think one of the hopefully good things



1 to come out of this from a systemic point of view is that  
2 some of these things have been recognized, like the move  
3 to provide better information, ongoing information about  
4 asset-backed securities, to put more derivatives on  
5 exchanges or through clearing mechanism may help with  
6 some of this, but I don't think it's going to completely  
7 take away those stresses and strains that occur either  
8 in a crisis.

9           And just thinking about whenever there's a change  
10 in circumstances within one leg of the reporting system,  
11 whether it's change accounting standards or a new  
12 auditing standard, that -- it kind of shifts kind of the  
13 pressures and balances within the system.

14           Tom's going to talk about from the viewpoint of  
15 some of the large firms some of the continuing challenges  
16 and what they're doing around or have been doing around  
17 that, and Jean's going to talk about from the small  
18 auditing firms and their clients, the issuers, smaller  
19 issuers, what some of the challenges are.

20           One point I'd make is that we talk about fair  
21 value measures. Not all fair value measurements require  
22 estimation. For level one, you know, quoted prices in

1 an active market, we accept the quoted price. It's a  
2 fairly mechanical exercise.

3       Even some level two things, even though, for  
4 example, there may not be heavy trading in any day in a  
5 municipal bond, I think for most municipal bonds the  
6 matrix pricing approach is fairly well established, could  
7 be back-tested, and the like.

8       Larry did a great job in his ten minutes of  
9 coming up with all the other types of estimates in  
10 inherent and in accrual accounting. I spent two minutes,  
11 got to the end of the page, and stopped there, but I  
12 think the point I was trying to make there is that they  
13 really do vary in nature and extent of estimation.

14       The period estimate of accrued liabilities, which  
15 are short-term types of things, how you do that is very  
16 different than how you do a level -- an ARO, for example.  
17 And I go back into standards -- accounting standards and  
18 when we set -- on AROs, there was a lot of tension on  
19 that. I said, gee, these are really long term and we  
20 don't know how or when we're going to fulfill this  
21 obligation.

22       It could be 200 years from now and there may be

1 different areas, methods, and the like, and in that  
2 standard -- actually, in clarifying that standard in I  
3 guess it was interpretation 47, we actually said you've  
4 got a practicality exception if you can't really pinpoint  
5 it with sufficient certainty.

6           You have to be able to kind of have a view of the  
7 amounts and timing of how you're going to fulfill that  
8 ARO.

9           Now let me take the other hat on here, the Audit  
10 Committee perspective, and I'm on the audit committee of  
11 two very major financial institutions -- Chair of the  
12 audit committee of Morgan Stanley and I'm on the audit  
13 committee of Fannie Mae, and we obviously -- fair value  
14 and loan losses and all that kind of stuff are very, very  
15 key to the whole financial statements and explaining our  
16 financial position and our results.

17           And I would say both institutions prompted in  
18 part by the regulators, we have put in what I regard as  
19 pretty good governance processes and procedures and  
20 detailed procedures of internal controls. We've got the  
21 classic three lines of defense where somebody comes up  
22 with the estimate.

1           There are separate groups to look at them  
2 carefully, to look at the models, to look at the  
3 assumptions, and then you have the internal auditors  
4 coming behind to look at that and what I look for over  
5 time is that less and less of the deficiencies are  
6 spotted by either the second or third line of defense,  
7 the separate valuation review group or by the internal  
8 auditors. You want to see the quality being built in at  
9 the front end.

10           The auditors, obviously, a key part of the  
11 planning exercise, and I think due to some of the PCAOB's  
12 recent changes, the discussion with audit committee  
13 members and planning the audits are now much more timely  
14 and I think much more detailed.

15           And these are the kind of things, what are you  
16 going to do around this? We talk about the changes in  
17 the environment, the changes in the business models, and  
18 the like and how are you going to respond to those kind  
19 of things.

20           I also like to get from the auditors each quarter  
21 if there are changes what were the big subjective things  
22 this quarter? Were there unusual changes or whatever?

1 I like to know all of that both from management and from  
2 the auditors.

3 I like to know about -- somebody mentioned  
4 consistency. That is very important, and part of that,  
5 kind of that you didn't detect any overt management bias  
6 in the going about the valuations or the loan loss  
7 allowance or whatever complex and long-term estimate it  
8 might be.

9 It's important to understand that from a not only  
10 audit committee but a board perspective or a risk  
11 committee perspective, a lot of this also ties in with  
12 the basic -- the functions of risk management, the  
13 strategy, the operations of certainly a large financial  
14 institution.

15 Proper valuation, proper estimation are key to  
16 running the business. Absolutely. You can think about  
17 it in a risk management context and types of things, but  
18 understanding well, why are we having so much difficulty  
19 and challenge in this new thing and that?

20 What did we decide going in? What are the real  
21 challenges in it? We have, for example, at Fannie Mae  
22 under a mandate to systematically reduce what's called

1 our retain portfolio of whole loans and asset mortgage-  
2 backed securities.

3           And in order to decide what to sell when, we do  
4 a fair value based upon what we could get in the market  
5 at the time and we do what's called an intrinsic value,  
6 which is a management estimation of the cash flows  
7 discounted at a risk adjusted rate.

8           It's kind of a sell versus hold kind of decision,  
9 but it's being regularly done in order to figure out at  
10 what point should we make the sales and sometimes also  
11 in what form.

12           Are we going to just sell them outright or are we  
13 going to go into a securitization type thing where we  
14 transfer -- retain some of the risk but transfer some of  
15 it?

16           So, you've got to understand that, again, it's  
17 not only the audit committee. This is tied into good  
18 governance, both by management and by the board of  
19 directors.

20           Now, from the PCAOB's point of view, a lot of  
21 suggestions have been made. I'll give my own, but  
22 there's always the issue of the -- I'll call it the

1 Hippocratic oath of standard setting.

2           It's not exactly do no harm, but it's make sure  
3 that you're going to do more good, a lot more good than  
4 harm when you create new standards in that, and that  
5 takes a lot of judgment.

6           But, you know, I see, for example, the old  
7 standards at least in the fair value portion were written  
8 before 157, 157 or 820, sorry, 820, introduced new  
9 concepts in trying to come up with a single definition  
10 of fair value.

11           Certainly, level two and three, not all level  
12 two, as I said, but that's an issue. We've talked about  
13 the use of pricing services. I'll have some thoughts  
14 about that. Valuation specialists, as well.

15           On auditing other accounting, as I said, they  
16 vary. Somebody said there's a lot of variety between  
17 them and they're all over the place and is it all of them  
18 or is it which ones, do you need different guidance for  
19 different types? What's common guidance? What has to  
20 be detailed specified guidance?

21           The disclosures as the investors said are very,  
22 very important. They -- we constantly heard that the

1 disclosures are as important as the actual point  
2 measurements. And then, as I said, there are  
3 practicality exceptions. How do you decide whether  
4 that's a reasonable -- the company's taking a reasonable  
5 out there or not? Is there proper disclosure of it and  
6 the like.

7 I think there's other standard setting  
8 considerations which I mentioned before from my  
9 experience. When you get something as broad as this, you  
10 need clarity and scope and in definitions, and I kind of  
11 -- thinking about it, I came to a similar kind of  
12 conclusion as Kevin Reilly, that you probably -- you may  
13 want a broader standard with broader guidance, but then  
14 to specific situations, and I wouldn't provide detailed  
15 rules and things, but I've always found it helpful in  
16 standard setting is to take almost like mini case studies  
17 in an educational kind of way and go through them and  
18 here's kind of the things that we would expect of the  
19 auditor in those realistic situations.

20 Again, make sure you do consider the behavioral  
21 impacts of what you write. It's very difficult to do,  
22 but understand how people would react to specific wording



1 and the like. I asked is ISA 540 a good starting point?  
2 It may be. I think we heard from Arnold this morning  
3 that it may need some refreshing and they're very eager  
4 to understand what's going on here and the like.

5         And then finally, I think as a lot of this  
6 discussion today pointed out that this is not just a  
7 matter for improved auditing standards. It requires  
8 broader continuous improvement. It may be some thinking  
9 to of the box, too, and I realize that may be beyond the  
10 sole purview of the PCAOB, but it's certainly within the  
11 purview of the various groups within the financial  
12 reporting system.

13         This is not a new issue. This tension between  
14 increased usefulness, relevance, and the pressure it then  
15 puts on the auditor, auditing standards, and the like.  
16 Lots of solutions -- not solutions, ideas have been  
17 forwarded over the years.

18         I remember back in the '90s, Commissioner Steve  
19 Walman had his notion of the colorized financial  
20 statements with different levels of information, which  
21 in part would depend on degrees of measurement  
22 uncertainty.

1 I recall about ten years ago -- I guess it was 11  
2 years ago in November 2003 there was rather an eminent  
3 group convened by what was called the American Assembly  
4 of Columbia University, and I wasn't associated with  
5 Columbia at that point, but it was a group of -- there  
6 were, I think, four -- the current chair of the SEC, Bill  
7 Donaldson, was there. Bill McDonough and Charlie  
8 Neimeier was there.

9 Ryan and Catherine Shipper were there, but there  
10 were senior people from the accounting firms, from the  
11 investor community, and the like, and it was really on  
12 the future of the accounting profession, and it was a  
13 wide-ranging discussion for three days.

14 But we talked a lot about this whole issue of  
15 moving forward, the reporting to be more relevant but  
16 then how do you deal with that in education? How do you  
17 deal with it in auditing and auditing standards?

18 And actually a number of us in the room were  
19 here. Not just me; I think Bob Guido was there. I think  
20 Jim Cox was there, and I think there was even a very  
21 eminent senior securities attorney from the firm of Baker  
22 and Botts, one Mr. James R. Doty, there that was part of

1 putting this whole report together.

2           It had a whole section on the need to change the  
3 auditing standards to kind of evolve into this new world  
4 we were kind of going in, and they basically at that  
5 point advocated that there would be different levels and  
6 types of attestation for different types of things in the  
7 financial statements, things that you could vouch  
8 directly, one, and things that required complex objective  
9 estimates that there would be other approaches.

10           They happened to advocate the approach of more  
11 the attestation around forecasting-type model. But that  
12 -- it was just, again, trying to think out of the box.  
13 I do think as some have said that we have made some  
14 movement, both in the accounting and disclosure; probably  
15 not enough.

16           I know the standard setters are continuing to  
17 think about that, including other ways to present the  
18 information to give better ideas between what's kind of  
19 more hard and what's more subjective, long-term re-  
20 measurements and the like.

21           And I do think, also, that the expanded order  
22 reporting, which other people have mentioned may provide

1 a vehicle for improving the communication around this  
2 area and maybe reducing what some people refer to as  
3 expectations gap. Thanks.

4 MR. OMBERG: Great. Thanks, Bob, and Marty,  
5 thanks for organizing today. I think this has been a  
6 great dialogue and a great conversation and I think that  
7 as we got the opportunity to listen to those on the  
8 panels that came before us, certainly a lot of good  
9 things to consider.

10 As I got ready for today and thought about today  
11 and worked with a number of my partners at Deloitte, we  
12 really went back and looked and started with inspection  
13 themes and inspection comments, and I know Helen provided  
14 an update on that, but we sort of looked at what were the  
15 themes as we thought about where we've been with  
16 management estimates, but we also looked at the evolution  
17 around how we've been thinking about management estimates  
18 and what we've been doing around management estimates  
19 over the last three to five years and just thinking about  
20 the guidance.

21 And I know all of us on the audit side think  
22 about guidance that we put out to our practitioners and

1 just looking at the guidance and the evolution of that  
2 guidance around estimates and then I know there's been  
3 a lot of focus here today around learning and just  
4 looking at what we've been doing, not just about training  
5 our internal specialists because we've been on a journey  
6 and I think there have been some great comments that  
7 certainly we'll take back around learning, but then what  
8 we've been doing with our core audit professionals, as  
9 well, just in the area of learning and trying to raise  
10 the awareness and trying to increase the tools that we  
11 provide to our professionals and also looking at  
12 resources.

13       I think there's been a lot of dialogue here today  
14 about resources, and I'll spend some time later talking  
15 about the resources that we have and that we're trying  
16 to deploy against estimates and against trying to make  
17 sure that we're continually raising our game as it  
18 relates to management estimates.

19       Helen had mentioned just sort of the inspection  
20 themes and the inspection comments and clearly they would  
21 reflect if there's challenges around auditing managing  
22 estimates, and while we may have seen some improvement

1 recently, there's still areas for improvement. We've  
2 still got a lot of things that we can look at and a lot  
3 of things that we can do better at.

4       I think when we look at sort of where we are from  
5 our perspective around this, there's a couple of themes  
6 that come out. How we audit and how we use information  
7 that comes from management specialists. That's an area  
8 that I'll talk about because I think that's an area where  
9 there are some things that we could probably improve  
10 around how we use the information that comes from  
11 management specialists.

12       And then how do we look at and how do we audit  
13 and how do we document data and models, and I know  
14 there's been some dialogue here around data and models  
15 and the controls around the data that go into those  
16 models. So, we'll spend some time talking about that.

17       It might be helpful just to spend a little bit of  
18 time -- I know Matt provided some perspective around a  
19 pricing service, so as we went back and sort of looked  
20 at the evolution around how we think about fair value and  
21 auditing fair value, clearly back right after the credit  
22 crisis we stepped back and we looked at fair value and

1 we looked at how we were approaching the audits of fair  
2 value and I think the consultation paper makes reference  
3 of centralized valuation methods that some firms might  
4 use.

5       I know a number of the firms do that. We do  
6 that. We began centralizing all of our valuation  
7 resources and all of our valuation professionals with a  
8 view that the issues were too big. The resource pools  
9 were somewhat limited and so from a deployment, from a  
10 training, learning, development, and monitoring point of  
11 view, we did go to a centralized process for that.

12       And we also started looking at how we were using  
13 pricing services or vendors, and were we using those  
14 vendors in the right way, were we doing the things that  
15 we needed to do around due diligence to get comfortable  
16 with those vendors, and as Matt alluded, a number of the  
17 firms now do a fair amount of due diligence.

18       We do a lot of due diligence on a handful of  
19 vendors. We look at five vendors. We do onsite due  
20 diligence annually where we send in teams of audit and  
21 accounting professionals as well as our internal  
22 specialists around fair value to really do a deep dive

1 and to understand how the pricing services go about  
2 pricing, what information do they use, what quality  
3 control do they have.

4         And as a result of that, we've decided that for  
5 the five vendors that we look at, some of the asset  
6 classes that they provide pricing information on would  
7 be reliable. Now we make that determination based on  
8 what we find in the due diligence that we do, and as I  
9 said, we do that annually; we update it quarterly.

10         And in addition to that, we also do some fairly  
11 extensive walk-through where we price securities, we  
12 compare our pricing to the vendor's pricing, but we also  
13 understand is the method we're using independently  
14 consistent with the method that they've described to us  
15 that they use.

16         And just to sort of level set, I know Matt  
17 mentioned that there's 2.7 million or so CUSIPs that they  
18 price on a daily basis. When we look at the asset  
19 classes that we think were reliable from an audit  
20 perspective, and that's not to say that the other  
21 information is not reliable; we've just held a pretty  
22 high threshold around what we can rely on from the



1 pricing services, they tend to be asset classes like U.S.  
2 treasuries, asset classes like U.S. investment grade,  
3 corporate bonds, and municipal bonds, U.S. agencies, so  
4 Freddie, Fannie, Jennie notes that they issue off their  
5 own balance sheet as well as some of the MBSs that are  
6 guaranteed by those agencies but not all of them.

7         So, it's a fairly limited population. We  
8 wouldn't look at, for example, private label mortgage-  
9 backed securities or private label asset-backed  
10 securities. Again, it's not that we're not comfortable  
11 with the work that's being done at the pricing services,  
12 we just think there's too much variability within those  
13 asset classes and in some cases too much subjectivity and  
14 too much judgment.

15         I think Matt mentioned that they'll make a lot of  
16 information available to people who ask for it but  
17 perhaps they wouldn't make the code available. If we had  
18 to ask for the code, we probably wouldn't look at that  
19 asset class as being one that we could rely on from an  
20 audit point of view.

21         We're looking for transparency. We're looking  
22 for homogenous. We're looking for things that while they

1 may use models to value them, the models are relatively  
2 standard market models that anyone could reasonably back  
3 test on their own or reasonably reproduce on their own.

4           And so we do that, as I said, for five vendors.  
5 We provide to engagement teams fairly extensive due  
6 diligence memos that include the interviews that we've  
7 had and the onsite meetings that we've had with the  
8 vendors, as well as the work that we've done.

9           So, we provide the back testing that was done on  
10 the securities, but then we also have realized that we've  
11 got to connect that to the actual engagement. So, an  
12 engagement team would then be required to actually not  
13 just rely on the vendor but make sure that we're doing  
14 some testing at the engagement level.

15           So we're looking at some of the securities that  
16 are within those asset classes that are covered and we're  
17 actually pricing those as well to do another level of  
18 validation. So, we do a, for lack of a better word, a  
19 macro due diligence but then we actually test at the  
20 engagement level as well to ensure again that at that  
21 engagement level the work that we've done in providing --  
22 and due diligence with the vendor this corroborated all

1 the way down to the engagement level.

2           So we do a fair amount of work, and candidly, I  
3 think when we started the process we probably thought we  
4 would cover more asset classes at the vendors than we  
5 ended up covering. And so I do think that the process  
6 for us has really been good from an overall audit quality  
7 perspective and enhancing our understanding of actually  
8 what's happening at the vendors.

9           And again, it's not to say that the asset classes  
10 that we don't cover are not done in a high quality way  
11 by the pricing services. We still use that information  
12 to look for disconfirming information, so if a pricing  
13 service provided a price on something that we didn't  
14 think was reliable, we might still look at that just to  
15 make sure is there other information out there that we  
16 don't have that would either help us in confirming where  
17 the client's price is or disconfirm.

18           But if we were using it for confirming, we'd  
19 still have to do more information. We couldn't just rely  
20 on the vendor.

21           And so, I think there's other challenges that we  
22 have around management estimates and fair value. I think

1 use of third parties I talked about and we'll go into  
2 that in a little more detail, but the data in the models,  
3 and I think it's been talked about a lot here today, is  
4 just looking at illiquid, hard to value instruments,  
5 understanding and documenting, how do you get comfortable  
6 with an illiquid, hard to value?

7           And if we're using models, if we're using data,  
8 where is the data coming from, where are the models  
9 coming from, and how are we getting comfortable with  
10 that? I think when we can see the process from beginning  
11 to end, when we can develop our own assumptions, when we  
12 can use or own model, and we can see the output that  
13 comes from that, we generally feel pretty comfortable.

14           When there's a breakdown in one of those is where  
15 we generally run into challenges, and we see that a lot  
16 with specialists where we may see the input, we may see  
17 the output, but we won't necessarily see what happens in  
18 the middle.

19           And so when we don't have the model, and I do  
20 think this is something, Marty, that would be good to  
21 explore, is that when management is using a specialist,  
22 I think the consultation paper makes reference to the

1 auditor looking at that as if management had performed  
2 the work.

3           And I think the challenge that we frequently see  
4 is it's very hard for us to do that because it requires  
5 us to actually have the model and to be able to go back  
6 through the model and understand how the inputs get to  
7 the output.

8           And so I do think that's a challenge that we see  
9 frequently as auditors is that we don't necessarily see  
10 what happens inside the black box, and many specialists  
11 are not always willing to share that for proprietary  
12 reasons.

13           The models can be very, very complicated, and are  
14 not things that you can generally just push across in an  
15 email, and so that is an area that I think we do need to  
16 explore is just how do auditors get comfortable with the  
17 work of a specialist because it's not always possible for  
18 the auditor to go through as if management had done it.

19           And I think it's also useful to continue to  
20 highlight what's management's responsibility, especially  
21 when they're using a specialist around getting  
22 comfortable with the work of the specialist.

1           They can obviously evaluate the specialist, get  
2 comfortable with the reputation, get comfortable with  
3 their qualifications and their credentials, but there  
4 still is the black box in the middle.

5           Specialists are usually willing to provide you  
6 with the assumptions that they use. They're always  
7 willing to provide the output, but it's what happens in  
8 the black box that becomes a bit of a challenge, and so  
9 management's got a responsibility to understand that and  
10 evaluate it, put their controls around it, and we  
11 obviously have that same responsibility, but it is a bit  
12 of a challenge because we don't always see what happens  
13 in the middle.

14          I mentioned resources, and I do think it's worth  
15 noting, and I know Jean's going to highlight on this as  
16 well, but we have a significant level of resources that  
17 we've committed to estimates. And if you just look at  
18 fair value estimates for a minute, we've probably got 500  
19 professionals. They're not FTEs, but they're 500  
20 professionals when in the firm they'd focus on valuation.

21          And so people have highlighted some very good  
22 points around how do you develop those resources, how do

1 you train those resources, how do you take somebody who  
2 is a deep mathematician with a trading background and  
3 help train them in auditing and accounting in addition  
4 to the deep expertise that they bring to the table.

5           And so, we're not constrained because we're not  
6 willing to invest. We're always willing to invest and  
7 bring more specialists onboard. The constraint is just  
8 around how do we integrate them, how do we make sure that  
9 we give them the right training and the right  
10 development.

11           We've got a fair amount of supervision and  
12 review, but it's the training and the development of the  
13 specialists and then making sure that we can connect  
14 them. I think when you look at the background of many  
15 of these specialists, I mean, many of them have advanced  
16 math degrees. Many of them are Ph.D.s. Many of them  
17 have prior experience as traders, as risk managers, as  
18 regulators.

19           So, they're very, very knowledgeable about the  
20 markets, but as has been the point that's been made many  
21 times is they're not necessarily connected to accounting  
22 and to auditing, so that's a challenge that we continue

1 to deal with.

2           There's also a significant infrastructure that  
3 needs to be put in place for specialists, in particular,  
4 for fair value. If you look at the investments that we  
5 make in data and the investments that we make in models  
6 and that's a continuous.

7           We've got to constantly be out getting data from  
8 Matt and from his competitors as well as other data that  
9 we use, but in addition, there's an extensive library of  
10 models that we -- some we build on our own, some we  
11 license and acquire from others -- that we've got to  
12 constantly be evaluating to make sure that those models  
13 are up-to-date and that the data that we're using for  
14 those models is reflective of the current market.

15           The only other thing before I pass it off to Jean  
16 just to mention is the distinction between a specialist  
17 and a data provider, and I think one of the things -- I  
18 know the paper talks a little bit about it -- one of the  
19 things that we look at and sometimes struggle with is can  
20 we do a better job of delineating a specialist versus an  
21 information provider.

22           And I think clearly we look at specialists and we



1 think of somebody who can provide information or can  
2 provide an estimate about a unique asset or a unique  
3 liability, and for example, somebody who's engaged to do  
4 evaluation of a mortgage servicing right, which requires  
5 deep understanding of mortgages, deep understanding of  
6 the models that you would have to do to value that.

7         That clearly would be a specialist versus a data  
8 provider, and I think we would look at IDC as a data  
9 provider. They're useful, they provide a lot of  
10 information, it's a service that is somewhat open  
11 providing you're willing to subscribe to it and pay for  
12 it.

13         They tend to provide data on assets that are  
14 fairly transparent and not necessarily unique. So we do  
15 think from an audit perspective it would be helpful if  
16 we could differentiate between the two, and then what are  
17 the responsibilities of an auditor when you're looking  
18 at a specialist versus when you're looking at a data  
19 provider.

20         So, with that, I think I'll pass it over to Jean,  
21 and she can provide some comments.

22         MR. BAUMANN: Before you do, I'll ask a question.

1 If there's some other cards that we'll see, as well.  
2 But, Tom, you touched on a lot of really very important  
3 topics that we set forth in the Consultation Paper, and  
4 I'm glad you took them head on in your comments.

5       Certainly, we'd be very interested in comment  
6 letters from you and from others that deal with the  
7 question about the centralized approach, and as you said,  
8 the macro due diligence that you did at five pricing  
9 services, and then, how you communicate that to the  
10 engagement teams, what the details and the levels of that  
11 communication.

12       And then, I'm also glad to hear that that's  
13 supplemented by additional testing at the engagement  
14 level, and how you think that should be articulated in  
15 your own guidance, maybe, but how it could be articulated  
16 in an auditing standard, as well.

17       And then, at least, to the next major point that  
18 I, you touched on a number of major points, but it's  
19 clear that from earlier comments from the academics and  
20 others that auditors tend to test management's process,  
21 most of the time, to fall to that.

22       And you're right, we laid out in the Consultation

1 Paper that if management was relying on a specialist,  
2 that if the auditor was testing management's process, one  
3 possibility would be that the auditor would have to test  
4 that data from the specialist, as if it was prepared by  
5 management.

6           And now you've indicated, of course, that some of  
7 that data that was proprietary, and therefore that would  
8 present challenges. So I guess the question is then, you  
9 know, how could the auditor really test management's  
10 process, if part of that process is kind of hidden from  
11 the auditor, because it's proprietary?

12           And I recall a speech given about, going through  
13 management's responsibilities, Brian Croteau may recall  
14 the speech, also, about three years ago, from the SEC  
15 staff at the annual AICPA SEC PCAOB Conference that  
16 management certainly had a responsibility for their books  
17 and records responsibilities, to understand what  
18 management specialists did and couldn't just rely on  
19 that.

20           So to the extent they were using that as part of  
21 their process, they needed to understand the key aspects  
22 about that process, so they could take responsibility for

1 books and records, otherwise, I don't want to state  
2 incorrectly, Brian, but I think, one of your staff was  
3 pointing out they might have some issues, with respect  
4 to internal control over financial reporting, if  
5 management didn't understand that.

6           So we laid out this issue in the Paper. Very  
7 glad you brought it up. We'd love to get comments about  
8 if management is using a specialist, as part of their  
9 process, but yet, some of that information isn't  
10 transparent to either management, or the auditor, what  
11 should the audit procedures be then, in that regard? So  
12 very important factors for us to hear more about.

13           MR. CROTEAU: Just, credit where credit's due, it  
14 was Jason Plourde's speech, who worked in our office at  
15 the time. Certainly, I associate myself with his remarks  
16 and we continue to think that the remarks made are  
17 grounded in existing rules. So it was really just laying  
18 out management's responsibilities, as they existed and  
19 still exist today.

20           MR. BAUMANN: Jean.

21           MS. JOY: Thank you. And I'd also like to thank  
22 the PCAOB for the opportunity to participate today,

1 because the conversations have certainly been  
2 enlightening and clarify that this is not an easy issue  
3 to deal with.

4 For those of you that are not familiar with Wolf,  
5 I thought it might be helpful just to put it in  
6 perspective the size firm that we are. We have about 210  
7 employees, 18 partners, and we have 20 to 25 issuer  
8 clients that we deal with, you know, depending on the  
9 year that we may be looking at.

10 And we're a full service firm. We have a niche  
11 that focuses on community banking, and we also deal with  
12 investment advisors, broker-dealers, and several other  
13 industries, as well. But the financial niche, I think,  
14 is important to this particular topic that we're speaking  
15 of today.

16 And I thought that I would focus on, really,  
17 three major categories. One dealing with what are those  
18 estimates and fair values that are common to the smaller  
19 issuers? I'll speak a bit about risk assessment and  
20 judgment, which is really the foundation for the  
21 auditor's response. And then talk a bit about the  
22 resource challenges and how that relates to specialists

1 and third party pricing services with smaller issuers and  
2 their auditors.

3           As we know, accounting estimates and fair value  
4 measurements are certainly not unique to larger  
5 institutions. And I, as well, have a list here, but I  
6 will save you the trouble of going through that list.

7           However, I just wanted to focus on the fact that  
8 there are certain estimates that are requiring a lot of  
9 attention today, for different reasons. Business  
10 combinations continue to be a significant focus for us.  
11 Activity is increasing as the economy recovers. And  
12 there are business expansion opportunities and pervasive  
13 reasons, on both the buy and sell side, to effect a  
14 business combination today.

15           We're dealing with investment portfolios that  
16 have both Level 1 and Level 2 investments in them, which  
17 we believe, and in our practices, may be much more  
18 readily available in terms of fair values and pricing.

19           We also deal with Level 3 securities and  
20 alternative investments in assessing the challenges  
21 related to fair values.

22           In terms of other estimates, pension and post-

1 retirement obligations, stock-based compensation are very  
2 prevalent in the smaller issuers, companies of all sizes.

3           And with regard to asset impairment issues,  
4 because of our community banking clientele, we deal very  
5 often with allowances for loan losses and the resultant  
6 challenges that that estimate provides, as well as  
7 goodwill impairment issues.

8           We thought about the support for, you know,  
9 should there be a single standard that is addressing the  
10 estimates and fair value measurements? And, you know,  
11 I think the conclusions are mixed.

12           We would be in favor, on one hand, of combining  
13 into a standard, as long as that standard could be  
14 principles-based. And I think that's the challenge that  
15 we were hearing today. And the comments that I heard  
16 today, as well, were actually changing my focus a bit.  
17 We do think that the standard needs to tie in closely to  
18 the risk assessment standards. And if it is to be  
19 principles-based, right now we have the standards that  
20 continue to have lists, lists of prescribed procedures.  
21 And is that really heading in the right direction?

22           We heard this morning about critical thinking and

1 whether or not something like that is really enhancing  
2 the ability for critical thinking, and where that needs  
3 to move might be more of a challenge. So I think being  
4 very careful as to how these issues are compartmentalized  
5 without a broad brush, but staying risk-based focused,  
6 I think, is really helpful, and principles-based focused.

7       In terms of risk assessment, AS 12 provides  
8 guidance for the auditor's assessment of the risk of  
9 material misstatement, as we know. The concepts in AS  
10 12 are well-defined. And the key to the auditor's audit  
11 plan is really a well-founded risk assessment that's  
12 grounded in the standard. And that requires that the  
13 quantitative and qualitative considerations be  
14 appropriately addressed.

15       To the extent that we can do that, and adequately  
16 document that, that forms the basis for the entire audit  
17 response. There is less questioning, in terms of what  
18 is the risk assessment, if we have grounded it in the  
19 standard and appropriately documented that risk  
20 assessment.

21       In terms of the appropriate audit response, and  
22 once we have done, hopefully, an appropriate risk



1 assessment, we deal with all three of the approaches  
2 here. Testing management's process. It's often used for  
3 estimates other than fair value. I think you'll find in  
4 the smaller entities that fair value determinations are  
5 typically not done with a management process, although  
6 they may outsource that, or engage a specialist to do so.  
7 But the estimates, typically, such as an allowance for  
8 loan losses, would be based on management's process.

9           I think we also see, when we look at developing  
10 an independent estimate, that there could be elements in  
11 testing management's process that relate to somewhat of  
12 an independent estimate, if you're actually looking at  
13 independently assessing certain of the assumptions. And  
14 you may independently estimate what you think certain  
15 inputs should be, not necessarily the whole process. So  
16 we also see some overlap there.

17           Developing an independent estimate is less  
18 utilized for the smaller issuers and it's generally not  
19 necessary for the non-complex estimates. That's where  
20 I was indicating that if there was a complex estimate,  
21 management would normally be engaging the specialists in  
22 that regard.

1           In terms of reviewing subsequent events or  
2 transactions, life would be so much simpler if we had  
3 more ability to do that. But very few estimates are  
4 actually resolved within the period subsequent to the  
5 audit date and prior to the audit release.

6           So as much as that could be helpful, it generally  
7 is not available. And then, if it is available, in terms  
8 of a fair value situation, as we've heard today, you have  
9 many issues relating to, what are the elements that  
10 change the fair value between the report A and the  
11 subsequent event A that provide typical challenges?

12           We've also noted here regulatory influences. And  
13 looking at that mainly in terms of recognizing the impact  
14 that that may have on a couple of things. One is in the  
15 risk assessment. Because if you're working in a highly  
16 regulated industry, risk assessment really should at  
17 least identify what the regulatory influences may be in  
18 assessing that risk. Whether they're subject to  
19 examination, or review, or testing, should all be part  
20 of the risk assessment.

21           And also in relation to management's bias that  
22 relates to an estimate, because there may be regulatory

1 requirements that management has an expected bias for,  
2 and an auditor has to at least understand what those  
3 influences may be.

4       Also, in considering the internal control  
5 environment, any regulatory influences on the internal  
6 control environment are important to understand, either  
7 from a monitoring perspective, or tone at the top.

8       Resources challenges. I'm envious of Tom's 500  
9 or so valuation professionals that he has access to, or  
10 the firm has access to. But, obviously, that's not the  
11 case with the smaller entities. We, as a firm, do not  
12 have any internal valuation specialists.

13       So when we look at the limited model design  
14 expertise that is within our client base, and some  
15 limitations on that in terms of, certainly, our own  
16 internal capabilities, that really results in the greater  
17 use of specialists and third-party pricing sources.

18       When we think about specialists, the auditing  
19 standard for the work of a specialist we think is  
20 fundamental to the audit process, and is really required,  
21 particularly when you're looking at smaller entities and  
22 possibly smaller firms.

1           Because what we heard today is the complexity is  
2 so different today than maybe it was in years past, but  
3 that specialist becomes even that much more significant.  
4 To test any of the assumptions in data to the level that  
5 we would be testing management's assessment, as Tom  
6 indicated, would provide significant challenges, because  
7 of the availability of the information and what we can  
8 see and not see, and frankly, what level of expertise we  
9 would have, or the client would have, to question some  
10 of the detailed assumptions, which is the purpose for  
11 engaging the specialists. So we do see challenges there.

12           I like what I heard today about raising the bar,  
13 in terms of what other credentials that specialists  
14 require and how we might make that more consistent and  
15 assessable to the auditors and in their evaluation.

16           Third-party pricing. Many clients, most clients  
17 use third-party pricing services. Sometimes there's a  
18 limited number of those pricing services that are  
19 available, particularly, if you look at the cost benefit.

20           So I think, based on what we've heard today, if  
21 there is a way that we could test to the same source with  
22 reliability, that would always be very helpful to the

1 smaller issuers and their auditors. But providing a  
2 means to determining the reliability of that third-party  
3 service provider, and relating that very specifically to  
4 the risk assessment, these investments that are just not  
5 difficult to price, combining that would be very helpful  
6 in terms of executing the audit.

7         We've indicated here that specialists are  
8 typically engaged by the issuer. So knowledge of what  
9 constitutes reasonable assumptions also is a challenge  
10 for the client. Tom commented on that, as well.

11         And we've acknowledged here that there will be  
12 continued emphasis on education, and there should be.  
13 The client and the auditors have a responsibility to at  
14 least gather sufficient technical expertise to be able  
15 to deal with the industry, or the estimates, or to  
16 sufficiently challenge the inputs and estimates that  
17 we're dealing with.

18         And we think that this will continue to be more  
19 complex going forward. It will present challenges, so  
20 the timing of this topic is very timely, and these issues  
21 will continue to challenge the smaller issuers and their  
22 auditors, particularly in relation to complex GAAP and

1 new estimates as we go forward.

2           We talked about the allowance for loan losses and  
3 the expected credit loss model, revenue recognition. It  
4 will not be any easier going forward, so we appreciate  
5 the dialog today. Thank you.

6           MR. BAUMANN: And we appreciate your comments.  
7 And I do have some follow-up, but I do see a number of  
8 cards up first. So, Jeff Mahoney.

9           MR. MAHONEY: Thank you. Tom and Jean, you both  
10 talked about the use of specialists. I could say the  
11 PCAOB has a separate agenda project now on specialists.  
12 So just a couple of basic questions. One, how commonly  
13 are specialists being used with respect to significant  
14 estimates, including fair value measurements?

15           Second, what's the percentage of internal versus  
16 external specialists that are used? And then, third, if  
17 you were to make one change to the existing auditing  
18 standards with respect to the management and the  
19 evaluation of specialists, what would it be?

20           MR. OMBERG: I mean, I would say a couple of  
21 things. I mean, specialists, we don't see them every  
22 day, but I would say, over the course of the year, you

1 know, we have a fairly significant number of clients who  
2 we use specialists. And they could be, you know,  
3 specialists to value a, you know, particular asset or a  
4 liability, you know, that they have. But it's not  
5 something that I would say is pervasive, but I think it's  
6 something that. when we see it, becomes an area that  
7 consumes potentially a fair amount of time.

8         So if we could change something, I mean, you  
9 know, I think I would say this, you know, I said in my  
10 comments, having the auditor look at it as if management,  
11 you know, prepared it is a challenge. I mean, I think,  
12 frankly, the best thing for us to do is actually to have  
13 a more meaningful conversation, bring preparers to the  
14 table, bring some specialists to the table, and have a  
15 more meaningful dialogue around, how is it that an  
16 auditor can get comfortable with a, you know, with a  
17 specialist? And I think management probably needs to  
18 have more responsibility and more ownership around a  
19 specialist. I think maybe specialists need to be a  
20 little more forthcoming.

21         I can appreciate the competitive issues and some  
22 of the challenges they have around providing things that

1 they think are proprietary. But I don't think it's  
2 something that we're going to solve just with auditors,  
3 I do think we're going to need specialists and preparers  
4 to the table to have a conversation.

5 MS. JOY: And I would say that we see specialists  
6 being used particularly with pension and other post-  
7 retirement obligations that might require some type of  
8 actuarial considerations. And assets and liabilities  
9 acquired in a business combination, very often,  
10 particularly with a financial institution, specialists  
11 are being engaged to value intangibles, to value loan  
12 portfolios, to value some contingencies.

13 We see real estate appraisals, and Level 3  
14 investments is generally where we would also see  
15 specialists in the investment portfolio. And, I think,  
16 up until I said Level 3 investments, we can get  
17 reasonably comfortable with the work of the specialists  
18 and the qualifications of the specialists.

19 What's probably most troubling these days is that  
20 you can talk to different valuation specialists regarding  
21 Level 3 investments, and you can have a wide variety.

22 So where that bar is, in terms of assessing the



1 qualifications of the specialists, many of these  
2 specialists are very well-qualified, but they still have  
3 different views as to what fair value is. And that  
4 presents issues for auditors, as well as clients, in  
5 terms of trying to reconcile what is the value that will  
6 be reflected in the financial statements.

7 MR. BAUMANN: Bob.

8 MR. HERZ: At least my experience is that the  
9 large financial institutions, for the ongoing operations  
10 involving financial instruments, more and more of it's  
11 in-house, you know, with highly specialized people, both  
12 at the initial valuation and the second line, so to  
13 speak, the separate valuation review function, as well.

14 So I think where you see it more, as people said,  
15 is actuarial valuations, insurance reserves and business  
16 combinations and impairment, you know, the annual  
17 impairment reviews.

18 And, you know, I kind of, you know, again,  
19 thinking out of the box, I kind of like what Tom Omberg  
20 said. Because part of the problem now is, as I see it,  
21 you know, is when the valuation folks come in, and there  
22 are varying levels of professionalism and work that they

1 do, but it's not always clear exactly how much they did  
2 to obtain comfort with management's, you know, tying them  
3 to the factual information, or maybe the projected  
4 factual information, so to speak.

5           And I could see Tom's model, or some variation of  
6 it almost where, you know, somebody would be willing, and  
7 it might be the large accounting firms, over time, to  
8 say, you know, we're ready to become, you know,  
9 independent, certified financial statement valuers, where  
10 you do not only the valuation, but you also do the  
11 auditing, so to speak, or get enough comfort on the --  
12 and not complete reliance by the audit team, but, you  
13 know, more reliance than now where they're just kind of,  
14 I don't know, so it's kind of a grey zone.

15           And sometimes, my perception, having been in a  
16 client side, you know, it's a little bit of a war zone.  
17 And that's very disquieting to, you know, when you're  
18 sitting there and they're kind of, you know, there  
19 doesn't seem to be any coordination, or the things are  
20 not aligned properly. And I can see that happening.

21           And, you know, you think a regulatory point of  
22 view, I mean, the UK hasn't quite gotten that far. But

1 if you remember, the FRC, as I remember, took over  
2 oversight of the actuarial profession a few years ago,  
3 as well, realizing how important those were to pensions,  
4 insurance reserves, and the like.

5         So I think this kind of holistic system kind of  
6 thinking about how do we really -- you know, the real  
7 objective is to get more useful, more trustworthy  
8 reporting in the hands of investors, you know, that's the  
9 real objective.

10         MR. BAUMANN: Just one follow-up to Jeff's  
11 question, if I may? Tom, I guess, in your firm, you  
12 basically have specialists assigned -- you employ  
13 specialists more than engage them, I think that was part  
14 of his question, how you talked about management's  
15 specialists. But with respect to your own, when you use  
16 a specialist for your work, they're probably employed  
17 rather than somebody you engage, is that fair?

18         MR. OMBERG: Yeah, I think they're all employees,  
19 and we view them to be a part of the engagement, right.  
20 So we do the, you know, training with them where we would  
21 view them to be a part of the engagement team. If  
22 they're being asked to do valuation work, or something

1 else, they're doing it as part of the engagement team.

2 MR. BAUMANN: Right. And at smaller firms, Jean,  
3 probably more engaging specialists to review the work of  
4 management specialists, is that fair?

5 MS. JOY: I would say, more often than not,  
6 management is engaging the specialists. And that is  
7 often determined up-front with the risk assessment and  
8 planning process. And occasionally we will engage our  
9 own, but more often, management.

10 MR. BAUMANN: Steve Harris.

11 MR. HARRIS: Jean and Bob, you both refer to  
12 Level 3, and you kind of danced around it, in terms of  
13 valuing it. And, Bob, you talked about trustworthy  
14 reporting in the hands of investors.

15 If you can't value it, why don't you just say so?  
16 I mean, why are we going through this effort of valuing  
17 something which nobody can value, other than in a hugely  
18 significant range?

19 And if it is a hugely significant range, where  
20 should that be noted for the investor? Should it be in  
21 the audit report, should it be otherwise? How do you  
22 approach that?

1           We talked about Level 1, we talked about Level 2,  
2 we talked about the valuation, the difficulty of it. But  
3 when it gets to Level 3, I haven't heard anybody here say  
4 that that can be valued, how it should be valued, or, if  
5 it can't be valued, where should that be noted? Should  
6 it be noted in a footnote, should it be noted in the  
7 report, how do you go about solving that?

8           MR. HERZ: Well, I think that, you know, some of  
9 that's already kind of been dealt with, but probably not  
10 systematically and comprehensively enough.

11           I mean, first, and again, as I said, with the  
12 accounting standard setting, you know, there was a lot  
13 of discussion as to whether or not we should, you know,  
14 whether Level 3 fair values were the right information  
15 to provide.

16           And, remember, 157 doesn't tell you where to use  
17 fair value. That's another decision, project-by-project,  
18 on specific topics that the accounting standard setters  
19 then decide that. But they say, if they make the  
20 decision that it should be used, then look to Section  
21 820, now 157, there.

22           I mean, I think the thinking has been, and guided

1 by a lot of input from investors, is that directionally  
2 correct information is more useful than precise but  
3 irrelevant, non-useful information. And, you know, you  
4 could debate that, but it causes a lot of discomfort in  
5 the system.

6           You know, the work of the American Assembly, it's  
7 an interesting report, if you go back to it, it suggested  
8 that, you know, we actually, in the financials,  
9 acknowledge that. And not just for Level 3, but there's  
10 a lot of other estimates that have ranges. We saw them  
11 on the academic screens there, you know, that were beyond  
12 materiality. It just wasn't Level 3 fair values, it was  
13 a lot of other estimates that involved long-term  
14 projections of the future.

15           That the financials, you know, be reformatted,  
16 even for those things that have ranges. Now, whether  
17 that's societally and from a systemic point of view  
18 acceptable in a world that likes earnings per share,  
19 single number, likes all those kinds of things, is a  
20 broader question. But that would be one presentation  
21 alternative to the financial statements.

22           The accounting standard setters have been

1 thinking about a presentation that shows what are called  
2 "re-measurements" in a separate column and the like.

3 But then you get to the auditing. And what kind  
4 of auditing assurance can and should the auditor provide?  
5 Is it, you know, do we be much more explicit about what  
6 that is and what can be provided, and it be explicitly  
7 recognized that there are different forms and levels of  
8 assurance for different forms, you know, of things in the  
9 financial statements?

10 And we introduce complexity into the model, but  
11 it's probably a more representationally faithful  
12 depiction of actually what is going on and can be  
13 achieved.

14 MR. BAUMANN: Bob, I don't question the fact that  
15 it's good financial reporting. It's better to have  
16 relevant information, even if it's somewhere down on the  
17 reliability tract for purposes of investors.

18 But that's different than the auditing. And if  
19 the auditors are saying, at the end of the day I have to  
20 rely on some specialist, management specialist who has  
21 a black box that I really can't get into, then I think  
22 the question being posed there is, should be audit report

1 say, we did an audit of the financial statements, except  
2 with respect to X Y Z aspects, we relied on somebody  
3 else, and the report reflect that we relied on another  
4 party and we can't take responsibility for that?

5 MR. HERZ: Well, that's a possibility. In the  
6 old days, in auditing, like in venture capital funds,  
7 that's kind of what we did.

8 MR. BAUMANN: Did you want to make a comment,  
9 Larry?

10 MR. SMITH: I was just going to add that -- and  
11 this doesn't relate to the audit, but the accounting --  
12 you know, 157, or 820, as Bob said, also requires not  
13 only disclosure of the amount that's valued at Level 3,  
14 but also what the significant inputs are, so that the  
15 investor can see what the significant inputs are.

16 Now, the real question on the table that Marty  
17 teed up previously was, well, should there also be some  
18 disclosure of the degree of uncertainty that's embedded  
19 in that Level 3 measurement? And that's a different  
20 issue and it's an issue that people might raise to the  
21 FASB.

22 MR. BAUMANN: Well, we have a lot of cards up,



1 and we have a 4:45 break time, and we still have to hear  
2 from Barbara. So Barbara's summary may be very brief,  
3 because we've probably summarized greatly. But I have  
4 Professor Cox, Sridhar Ramamoorti, and Bruce Webb as the  
5 first three.

6 MR. COX: So, Bob's two minute list and then,  
7 Larry's ten minute list, just reminds us that one of the  
8 exciting parts of accounting is it's just riddled with  
9 account, you know, assumptions and judgments and  
10 estimates.

11 It's always been the auditor's role to kind of be  
12 the referee of that process against the rule book. And  
13 my take on it is that fair value accounting has made just  
14 a quantum change, I mean, a big change in scale, and  
15 that's why we're talking about it now.

16 And I think that intuition was supported by what  
17 we heard in the first panel today, that the category  
18 where we're finding the most problems in the inspections  
19 are areas of making these valuation judgments.

20 And I want to associate myself with what Kevin  
21 said earlier and that is that, if you work on a standard  
22 that's going to be really big, it's going to be an

1 aircraft carrier. And we all remember what happened to  
2 the aircraft carrier release at the SEC sometime ago, it  
3 never gets launched, and in fact, it started listing  
4 before it even got near the water.

5 And at the same time, I don't think you don't  
6 want to have a flotilla of the canoes, because they're  
7 inherently unstable, to continue the metaphor.

8 So I think the way out of this process goes to  
9 something that Bob just got through saying, and that we  
10 have to make, at least when it comes to fair value  
11 accounting, we have to make some judgment and some  
12 decision about what is the role of the auditor in this  
13 entire process. That's going to be our North Star here,  
14 and with a North Star, I think it'll lead us.

15 And so I think we're always going to be  
16 interested in problems of measurement. I mean, that's  
17 what accounting statements are supposed to do, and that's  
18 an inherent process. But I think we don't want to just  
19 get tied up in looking at the measurements, because I  
20 think that's going to lead us down the wrong path.

21 I believe that what you want to do, measurements  
22 are important, but there has to be the forest that

1 everybody keeps an eye on, and that is what Tom was  
2 saying earlier, that there were questions about whether  
3 these measurements biases are bias. That is, are they  
4 systematic? And that should make the alarm bells going  
5 off.

6           And in that process of evaluating the  
7 measurements -- it's a process, the governance process  
8 that was mentioned earlier -- I also believe that it's  
9 important in that process that this is not what we learn  
10 about in corporate law and law schools, about the  
11 business judgment rule, where you can have some screwy  
12 school of thought that will support what management is  
13 actually doing, even though their counter-weighting and  
14 compelling reasons are the other directions. That to  
15 look at to see whether these statements are providing a  
16 fair statement of the economic position and performance  
17 of the firm, there needs to be much more than just a  
18 razor-thin basis for thinking what the valuation model  
19 is.

20           And the role of this North Star that I'm  
21 supporting here would be that there has to be not only  
22 a governance standard, but it's got to be a well-accepted

1 method of valuation and the metrics have to support that.

2           And then just a final point I'll point out is  
3 that when you read the cases that have been coming out  
4 of the 2008 crisis, whether those cases survived a motion  
5 for summary judgment, or didn't survive a motion for  
6 summary judgment on the plaintiff's side, overall the  
7 standards that were being used were not really good  
8 governance standards.

9           So I think the North Star that we'd be looking  
10 for as we move forward is more going to be process-  
11 oriented, it's going to require a lot of evaluation and  
12 judgment on the part of the auditors about whether  
13 there's methods for determining the fair value of these  
14 assets.

15           MR. BAUMANN: Thanks, Jim. Brian.

16           MR. CROTEAU: Thanks. I just wanted to -- I'm  
17 just following-up on the discussion of whether something  
18 can be valued, and Larry will keep me honest if I get off  
19 track here.

20           But, you know, I think there's a difference in  
21 the discussion of what was being discussed and what Bob  
22 said what might be possible, relative to a scope

1 limitation. And then we might get into questions as to  
2 whether that satisfies an issuer's filing obligations.

3 But I don't think, what I was hearing today  
4 before, that was a suggestion that things can't be  
5 valued. If there's a black box issue, we should be  
6 talking about that and dealing with that.

7 But, today, I'm not so sure management, at least,  
8 of public companies, can satisfy their filing obligations  
9 with a scope exception of that nature. So I just wanted  
10 to be sure that that wasn't left unsaid.

11 MR. BAUMANN: Sri and Bruce Webb and then Rick  
12 Murray.

13 MR. RAMAMOORTI: You know, in a conversation  
14 around financial reporting involving complex valuations  
15 in foreign jurisdictions, I recall reading that, for a  
16 small country, or relatively small country like, let's  
17 say, Sri Lanka, there might be just one specialist in  
18 that marketplace. That's it, just one.

19 And so while there may be no questions about the  
20 competence of that specialist, I think certainly  
21 questions about, you know, that specialist's independence  
22 come up, particularly if they might be on, potentially,

1 both sides of a transaction.

2           And so I'm thinking, after hearing Jean's  
3 comments, that for small issuers and small auditing  
4 firms, this could also be a problem, in terms of the  
5 large specialist firms perhaps being unaffordable, so  
6 they have to go to, maybe, a smaller specialist firm.  
7 And there aren't too many of them, and so you're stuck  
8 with, pretty much, you know, just one firm. So, I don't  
9 know, does that raise questions about, you know, what's  
10 the quality of these, you know, estimates and pricing  
11 information that you're getting?

12           MR. BAUMANN: Bruce.

13           MR. WEBB: I just wanted to respond a little bit  
14 to Jeff Mahoney's observation and question. The  
15 observation was that the PCAOB also had a project on the  
16 use of specialist. And the question was, how often are  
17 they used, internally and externally, and if one change  
18 would be made in that area, what would it be?

19           And, I guess, I think specialists are used very  
20 frequently, both by issuers and by auditors. And  
21 whenever you're dealing with a fair value measurement,  
22 whether that be a financial instrument, or a tangible,

1 intangible asset.

2           And I think the larger issuers tend to have  
3 internal specialists, the smaller issuers tend to engage  
4 external specialists, similarly with the firms.

5           And in the case of our firm, we're sort of a  
6 middle market firm and I would say we're almost  
7 exclusively internal specialists for supporting our audit  
8 teams, although we do reach outside, occasionally. And,  
9 Jean, on the other hand, whenever they need that kind of  
10 help they would go outside. So I think you're going to  
11 find it sort of runs the gamut, and it depends, to a  
12 larger extent, on the size of the issuer and the size of  
13 the audit firm.

14           In terms of the one change that maybe should be  
15 considered is the Auditing Standards Board has separated  
16 the requirements when using a specialist as an auditor  
17 specialist from how you audit it when it's management  
18 specialist. And I believe the ISB has done so, as well.

19           With that in mind, although the projects aren't  
20 -- I don't know if you would combine the projects. My  
21 sense is that use of a specialist is so intertwined with  
22 accounting estimates that I would very much like to see

1 those two projects at least be on a parallel path.

2 MR. BAUMANN: Good. Thanks. And it's consistent  
3 with the view of our Board, who recently asked for us to  
4 put a Staff Consultation Paper out with respect to  
5 specialists and it's on our recent standard setting  
6 agenda.

7 Rick Murray, and then I'm really going to, just  
8 given time, try to turn it over to Barbara to kind of  
9 wrap up the events here. Rick.

10 MR. MURRAY: Thank you, Marty. I'll try to clear  
11 the decks for Barbara quickly. First, my thanks to the  
12 staff and the Board for a day that I think has developed  
13 a lot of extremely erudite thought and valuable movement.

14 My perspective, from a 40-year view, is that  
15 despite the enormous growth in the size and the speed of  
16 the measurement devil, we're no further behind now than  
17 we were in the '70s. And I kind of find that  
18 encouraging.

19 It seems to me, Marty, that we started the day  
20 with a centralizing set of themes. One was that the  
21 valuation issues are homogenized, the values and  
22 estimates are broadly in the same category of activity



1 and can be looked at in a spotlight.

2           Second, that it was a problem because the  
3 frequency and severity with which outcomes differed from  
4 booked values was unfair to the investor community.

5           Next, that the reason for that was primarily, or  
6 at least significantly influenced by insufficient audit  
7 attention observed through the inspection processes,  
8 warranting at least a significant response in the form  
9 of new and more prescriptive regulatory initiatives to  
10 address that issue.

11           By noon, it seems to me, we had pretty well  
12 developed a premise that there is no silver bullet. By  
13 now, I think it's clear, there is no silver target and  
14 we've got a crowd of problems and they influence and need  
15 attention by virtually every component of the financial  
16 reporting process.

17           And that some of the things that weren't fully on  
18 the table at the outset, I think, have been valuable,  
19 that the basic problem is valuation problem. That the  
20 first recourse to deal with it is probably at the issuer  
21 level. And I'm sharing here my view, rather than trying  
22 to summarize.

1           And that the end of the day, there will be some  
2 degree of unfair difficulty for the investment community  
3 because it is the disorderly reality we live in today.

4           With that, I strongly encourage proceeding with  
5 a regulatory initiative by the PCAOB, because there is  
6 clearly a lot that can be done with that. But that is  
7 a step, not a solution.

8           MR. BAUMANN: Agreed. And thanks for those  
9 comments.

10          Given the hour, and I do know people have planes  
11 to catch, et cetera, I do want to turn it over to  
12 Barbara. Barbara will try to bring together some of the  
13 key thoughts today, and where we're headed from here.  
14 So, Barbara.

15          MS. VANICH: All right. Thank you, Marty. So I  
16 just want to acknowledge that we went into today with a  
17 very aggressive agenda. And it was aggressive  
18 purposefully, since we all benefit so much from your  
19 views.

20          While we had a closing session scheduled to talk  
21 about the paper more specifically, technically, since  
22 you've all read the paper, you've already heard that

1 presentation.

2           It could be challenging to summarize any meeting,  
3 but it's certainly more challenging to summarize what I  
4 would characterize as just a great meeting full of  
5 insightful, thoughtful views from all the participants.

6           During the meeting I summarized the comments more  
7 broadly, but also more narrowly, just focusing on the  
8 single standard approach discussed in the paper. And in  
9 the interest of time, I'd like to go through those  
10 quickly before we wrap up.

11           So, overall, I heard support from several  
12 participants on support for one standard. We heard that  
13 the standard might need to emphasize challenging  
14 management, or maybe termed in another way, emphasizing  
15 skepticism by the auditor, of bringing people to the  
16 table that have the right skill set for auditing  
17 accounting estimates or fair value measurements.

18           And also about the importance of a robust risk  
19 assessment, which includes a thorough understanding of  
20 both the estimate and fair value, but also of external  
21 factors that could affect the valuation.

22           We heard that for a standard, it would be helpful

1 to have guidance for how to consider measurement  
2 uncertainty and inherent and certain complex estimates,  
3 even when that measurement uncertainty far might exceed  
4 materiality.

5         We had some good discussion about bias, where  
6 estimates are vulnerable to bias, and how to identify  
7 bias and how an auditor can address it.

8         We were also told to be cautious, given the  
9 breadth of estimates and fair value measurements that we  
10 seek to address and discuss in the Staff Consultation  
11 Paper.

12         We heard several comments relating to a more  
13 principles-based standard with maybe guidance or  
14 requirements that would address more specific estimates  
15 and fair value measurements. And it may not be evident  
16 from the Paper, but that's certainly part of the staff's  
17 preliminary views on the direction a single standard  
18 would set forth.

19         When you think about principles-based, I would be  
20 very interested in comments on how specifically the view  
21 that's discussed in the paper could be made to be more  
22 principles-based, if your view is that it is not

1 principles-based enough.

2           We had some comments on how to consider what the  
3 behavioral reaction would be to a new single standard.  
4 And we had some good discussion on resource challenges  
5 and how this can be involved, especially with  
6 specialists, hearing how some of those difficulties could  
7 be resolved would also be of great interest to us in your  
8 comment letters.

9           Before I let Marty close the meeting, I want to  
10 thank you for your input and time, on behalf of my team.  
11 We certainly will benefit from it and we'll spend quite  
12 some time going back through your remarks. So, thank  
13 you.

14           MR. BAUMANN: And before I do close the meeting,  
15 I will acknowledge one more card that's still up, Doug  
16 Maine, one of our SAG members and seeing none after that,  
17 Doug, you're going to get the last word.

18           MR. MAINE: I'll be quick. This is an  
19 enlightened suggestion. Given that there's no regulatory  
20 oversight for these very important specialists that we've  
21 talked about all day, it seems to me an easy first step  
22 would be for someone to issue some guidelines for

1 specialists in terms of certifications, experienced  
2 background, and so forth, and let your humble audit  
3 committees serve as the first line of defense to make  
4 sure that the specialists that are engaged have the right  
5 capability.

6 MR. BAUMANN: Thank you very much for that  
7 comment. I, too, as Barbara just did, want to thank all  
8 of the panelists for joining us today.

9 I thank all the SAG members for active  
10 participation throughout the day and valuable input, and  
11 everybody around the table for participating in this  
12 meeting.

13 I also want to thank my staff, led by Barbara,  
14 who pulled together what I think is a very outstanding  
15 discussion on a very, very important topic.

16 With that, I think we're about to leave, unless  
17 anybody has any further words. And thank you very much  
18 for great day. Have a good trip.

19 (Whereupon, the meeting in the above-entitled  
20 matter was concluded at 4:43 p.m.)

21

22

A				
<b>a.m</b> 1:10 8:2	<b>acceptable</b> 157:2 159:7 177:13 218:11 274:18	211:20 212:8,12 212:21 213:15,18 214:16,22 215:4	<b>acknowledgment</b> 65:12	14:12 15:3 18:10 22:22 46:17 71:10
<b>AAA</b> 138:3 148:12		216:18 217:21	<b>acquire</b> 252:11	97:20 99:2 102:1
<b>ability</b> 76:7 93:16	<b>acceptance</b> 55:3	222:12 228:13,16	<b>acquired</b> 86:12	102:13 105:6,7,18
96:10 98:3 113:7	<b>accepting</b> 36:4	229:11 230:10,17	212:16 268:9	123:20 131:16
113:11 119:1	<b>access</b> 203:22	235:15 238:10,12	<b>acquisition</b> 215:7	134:20 140:22
180:10,12 181:2	263:9,10	239:14 243:21	<b>Act</b> 190:18	156:7 159:1
188:18 189:13	<b>accomplished</b> 59:4	251:3,21 258:3	<b>acted</b> 63:16	179:21 192:7
220:14 260:2	<b>account</b> 11:5 23:3	270:7 273:12,18	<b>Acting</b> 3:7	285:10 288:7,10
262:3	60:17 123:12,22	274:22 276:11	<b>action</b> 23:12 38:3	288:14
<b>able</b> 29:1 37:10	149:20 151:7	277:8,13 278:11	146:15 174:14	<b>addressed</b> 15:12
47:9 65:20 79:3	277:9	278:17 283:22	<b>actionable</b> 48:1	34:13 50:20
105:18 111:13	<b>Accountability</b> 4:3	287:17	<b>actions</b> 37:8,22	132:14 260:14
113:12 119:4,16	4:17,20 21:18	<b>accounting-based</b>	128:20	<b>addresses</b> 15:21
140:2 170:14	<b>Accountancy</b> 3:5	122:16	<b>active</b> 16:11 29:4	158:21
173:4 182:18,19	<b>accountant</b> 62:22	<b>accounts</b> 22:19,20	86:3 153:20 180:6	<b>addressing</b> 20:13
188:19 204:1,6	96:8 145:1	23:1,7,18 24:22	226:6 230:1 290:9	35:18 259:9
231:6 249:5	<b>accountants</b> 142:16	25:17,18 47:6	<b>activities</b> 12:21	<b>adequate</b> 29:3
265:14	147:6,8	55:13 77:7 81:8	13:19 21:4 34:10	<b>adequately</b> 176:12
<b>abounds</b> 201:2	<b>accounted</b> 146:14	81:10,14,16 110:4	38:17 198:16	260:15
<b>above-entitled</b>	<b>accounting</b> 1:1,19	114:1,10,12	199:2 213:14	<b>ADESOYE</b> 5:14
221:16 290:19	2:1,14,19 3:5 4:7	123:13,13 127:2	<b>activity</b> 153:19	<b>adjust</b> 8:15 174:14
<b>above-referred</b>	4:11,14 5:7,8 7:1	128:9 130:11	182:18 225:14	191:11,19 192:9
141:17	7:3,5,8 9:16,19,20	131:14 145:20	258:11 284:22	<b>adjusted</b> 234:7
<b>ABS</b> 173:11	10:13 12:9 13:16	151:1,14 152:9	<b>actual</b> 27:13 87:20	<b>adjustment</b> 114:19
<b>absence</b> 182:8	15:5 17:3,4 18:22	213:3	166:13 224:12,13	114:21 115:6,21
<b>Absent</b> 162:10	20:9 21:16 42:12	<b>accreditation</b> 138:4	224:21 226:13	115:21 116:3
<b>Absolutely</b> 41:9	54:10 56:13,17	<b>accrual</b> 230:10	236:1 246:11	117:6,7 127:21
233:16	60:11,12 61:22	<b>accrued</b> 230:14	<b>actuarial</b> 268:8	128:3,8 187:3
<b>absorb</b> 162:20	67:13 70:11 74:15	<b>accumulate</b> 135:17	269:15 271:2	<b>adjustments</b> 115:5
212:19,19,19	90:19 92:12,15,18	<b>accumulation</b>	<b>actuaries</b> 67:22	116:22 154:8
219:18	93:1,4,5,8,12 94:5	34:11	<b>ADA</b> 81:15	225:1
<b>absorbing</b> 168:8	94:9,12,16,21	<b>accuracy</b> 26:7,19	<b>adapted</b> 126:7	<b>adopt</b> 125:2
<b>absorption</b> 212:18	95:5,11 98:15	95:10 101:9,13	<b>add</b> 148:10 149:10	<b>adopted</b> 14:3 94:10
<b>academic</b> 6:11	101:5 102:7 104:3	<b>accurate</b> 64:12	181:4 199:10	99:6 144:17
100:12 104:2	104:12,15 110:1	79:9 93:10 187:13	276:10	145:18 167:5
105:5,11,12,17	117:14,19,20	<b>accurately</b> 64:17	<b>added</b> 147:16	206:10
106:13 109:22	136:4 139:1,9,12	<b>accuse</b> 195:14	<b>adding</b> 72:3	<b>adopting</b> 202:1,10
111:5 112:4,7	142:7,8 144:5,22	<b>achieved</b> 275:13	<b>addition</b> 72:9 85:22	60:13 86:2 125:17
117:12,18 118:4	145:2,16 147:20	<b>acknowledge</b> 34:3	97:6 126:12	<b>advanced</b> 251:15
132:9 137:10	149:15 156:9	65:13 110:6 274:9	132:13 244:10	<b>advances</b> 211:1
157:11 274:11	181:17 182:4	286:16 289:15	251:3 252:9	<b>advantage</b> 122:21
<b>academics</b> 106:2	190:14,16,21	<b>acknowledged</b>	<b>additional</b> 12:18	<b>advice</b> 8:21
117:14 118:8	198:7,13,22	265:11	33:8,11 65:16	<b>advised</b> 151:15
138:3,5 254:19	199:15,21 202:4,5	<b>acknowledges</b>	93:22 98:16	<b>Advisor</b> 2:17
<b>accelerated</b> 123:19	203:13 205:6	165:20	130:21 254:13	<b>advisors</b> 257:12
<b>accept</b> 230:1	206:13 210:20		<b>address</b> 11:14	

<b>advisory</b> 1:3,9,10 1:16,19 8:9,21 21:20 95:8 143:11 222:13	<b>Alan</b> 5:1 6:20 143:5 143:7 187:18 189:22 197:19 204:22	<b>amortized</b> 69:4,4 92:18	<b>answers</b> 106:20 159:7 220:5	<b>appraisers</b> 64:6 80:20,22 81:2 82:22 83:2
<b>advocate</b> 239:10	<b>alarm</b> 279:4	<b>amount</b> 88:20 115:22 116:8 162:11 182:12 197:15 205:13 206:4 207:9 213:8 243:17 247:2 251:11 267:7 276:13	<b>anybody</b> 63:3 273:3 290:17	<b>appreciate</b> 57:12 78:13 83:7 84:15 92:8 132:8 179:22 266:4,6 267:21
<b>advocated</b> 239:5	<b>alert</b> 174:10 183:2	<b>amounts</b> 92:17 93:10,11,15 117:7 205:18 208:10 210:18,21 231:7	<b>anymore</b> 101:12 224:14	<b>appreciation</b> 98:20
<b>advocating</b> 74:11	<b>algorithms</b> 186:1 188:22	<b>analogy</b> 187:8	<b>anyway</b> 122:1 220:13 221:7	<b>appreciative</b> 198:11
<b>Affairs</b> 5:3 22:6	<b>align</b> 14:5 44:9 200:8	<b>analysis</b> 46:16 53:17 83:13 207:12 208:9	<b>apart</b> 140:19 149:16	<b>approach</b> 11:3 17:8 63:13 72:16 78:7 97:16 100:9 104:22 105:20 121:5,9 129:6 132:16,18 200:6,9 211:11 216:4,7 226:14 230:6 239:10 254:7 272:22 287:8
<b>affect</b> 57:9 104:17 104:19 128:9 155:6 186:12 287:21	<b>aligned</b> 14:1,19 270:20	<b>analyst</b> 101:4 190:9 192:11,17,18 197:12 202:16	<b>apologize</b> 45:7 60:13 117:22 182:1	<b>approached</b> 105:1
<b>affirm</b> 174:15	<b>alignment</b> 102:15 103:1	<b>analysts</b> 78:14 190:15,16 191:3,7 191:10 193:12,15 193:17 228:18	<b>apoplectic</b> 145:1	<b>approaches</b> 24:2 92:19 93:12 121:10 239:9 261:1
<b>AFL-CIO</b> 3:7	<b>alike</b> 172:5	<b>analytical</b> 67:15	<b>apparent</b> 106:6	<b>approaching</b> 138:1 243:1
<b>afternoon</b> 141:10 160:20 199:8	<b>allies</b> 94:8	<b>analytics</b> 138:4,8	<b>appear</b> 92:8 94:20	<b>appropriate</b> 14:11 14:15 28:22 29:5 31:14 46:12 62:8 127:10 133:3 187:3 206:4 209:22 260:21,22
<b>agencies</b> 148:12 187:9 245:3,6	<b>allocation</b> 212:16	<b>analyze</b> 13:11	<b>appearance</b> 84:8,9	<b>appropriately</b> 260:14,19
<b>agency</b> 54:6 196:8	<b>allow</b> 65:12 144:8	<b>analyzed</b> 13:11 39:12	<b>appears</b> 102:22 110:5 111:20	<b>approval</b> 20:2
<b>agenda</b> 10:1,10 11:10 12:7 213:14 266:11 284:6 286:17	<b>allowable</b> 121:11 149:4	<b>annual</b> 22:7 169:6 169:18 255:15 269:16	<b>appendix</b> 39:9	<b>approved</b> 17:2 19:22
<b>aggregate</b> 40:16 166:20	<b>allowance</b> 25:18 43:16 46:9 77:7 81:8,9,16 208:4 213:3 233:7 261:7 266:2	<b>and/or</b> 112:16 228:19	<b>applaud</b> 157:19	<b>approximately</b> 114:4
<b>aggressive</b> 152:2 286:17,17	<b>allowances</b> 259:5	<b>Andersen</b> 83:22 139:4	<b>applicability</b> 192:12	<b>April</b> 42:22
<b>aging</b> 26:4,7	<b>allowed</b> 145:17	<b>anecdote</b> 62:17	<b>applicable</b> 18:19 180:20	<b>area</b> 9:20 10:22 16:21 17:17 18:2 19:12 20:8,18 21:7 23:20 25:7 25:20 28:9,15 29:10,13 30:22
<b>ago</b> 13:21 19:22 84:3 192:14 238:1 238:2 255:14 271:2 278:2	<b>alluded</b> 201:21 243:16	<b>announcement</b> 203:3	<b>application</b> 18:20 32:1 33:4 143:19 156:5 195:2 199:2 207:8	
<b>agree</b> 52:2 81:9 92:3 96:14 127:14 140:10 157:1,6 193:18 211:16,21	<b>alternative</b> 13:12 16:2 92:18 93:12 149:16 258:20 274:21	<b>annual</b> 22:7 169:6 169:18 255:15 269:16	<b>applied</b> 26:3 32:4 58:5 76:4 207:7 208:12	
<b>agreed</b> 152:17 286:8	<b>alternatives</b> 13:12 218:15	<b>answer</b> 6:16,19 7:4 7:6 22:12 54:15 58:20 59:1 88:8,9 101:4,17 140:15 141:3 220:2	<b>apply</b> 16:3 35:6 47:4 48:20 131:19 137:16	
<b>agreement</b> 155:14	<b>amalgam</b> 146:7	<b>annually</b> 243:20 244:9	<b>applying</b> 32:8 194:14 201:4	
<b>agreements</b> 154:3	<b>amend</b> 12:8		<b>appointment</b> 198:22	
<b>ahead</b> 64:20 141:10	<b>amended</b> 99:11		<b>appraisal</b> 78:22 79:5 83:16,17 84:13 96:10,15	
<b>AICPA</b> 255:15	<b>amendments</b> 19:5 99:7		<b>appraisals</b> 82:1,4,6 96:7 268:13	
<b>AICPA's</b> 139:3	<b>America</b> 145:10		<b>appraiser</b> 64:11,12 64:13,14 83:5,8,9	
<b>aircraft</b> 216:11 278:1,2	<b>American</b> 146:7 154:19 238:3 274:6		<b>appraiser's</b> 64:17	
<b>akin</b> 214:2	<b>Americans</b> 150:1			
<b>al</b> 118:12	<b>Americas</b> 3:8			
	<b>amortization</b> 215:7			



31:2,10,22 32:5 32:20 33:3,7,22 38:22 42:14 43:5 43:10,15 45:22 46:19 48:6,13 56:11 85:22 96:2 96:7 104:3 109:12 109:14,15,15 118:3,5 120:20,21 132:9 138:19 139:15 140:6 142:11 146:1,2 150:22 155:11 180:8,19 198:2 200:20 201:2 205:6,11,22 206:7 207:11 210:10 219:13 223:1 240:2 241:9 242:7 242:8 249:15 267:6 282:18	<b>arrangement</b> 221:4 <b>arrangements</b> 30:12 213:6 <b>arrive</b> 58:21 <b>arrived</b> 69:15 <b>arriving</b> 101:16 <b>art</b> 46:12 84:1,3 <b>Arthur</b> 83:22 <b>article</b> 82:15,21 193:3,4 <b>articulate</b> 216:4 <b>articulated</b> 153:17 254:14,15 <b>aside</b> 95:12 <b>asked</b> 42:7 58:1 85:8 90:1 108:20 114:5 123:8 127:2 154:3 170:4 181:16 188:12 199:15 204:15 220:10 237:1 271:22 284:3 <b>asking</b> 175:3 176:13 181:15 183:8 203:11 <b>asks</b> 16:2 <b>aspect</b> 55:20 73:13 187:15 202:2 <b>aspects</b> 16:14 28:21 39:10 40:6 42:20 56:3 97:7 98:5 198:8 211:18 216:22 255:21 276:2 <b>Assembly</b> 238:3 274:6 <b>assertion</b> 208:5 <b>assertions</b> 74:22 75:3 <b>assess</b> 29:2 75:19 89:3 207:19 <b>assessable</b> 264:15 <b>assessed</b> 123:14 <b>assessing</b> 14:6 38:3 56:1 216:18 258:20 261:13 262:18 268:22	<b>assessment</b> 14:1,5 14:19 15:2 33:20 34:22 55:18,20 56:3 71:2 72:20 72:21 79:6,13 95:4,10 99:10,18 158:18 185:21 200:8 210:2 212:22 257:19 259:18 260:7,8,11 260:18,20 261:1 262:15,16,20 264:5 265:4 272:7 287:19 <b>assessments</b> 86:10 106:10 119:17 123:10,17,17 124:18 <b>asset</b> 109:14 114:10 114:12 124:2 156:1 164:9 185:6 221:3 225:4 234:1 244:5,18 245:1,2 245:13,19 246:16 247:4,9 253:2 259:3 267:3 283:1 <b>asset-backed</b> 225:9 226:18 229:4 245:9 <b>assets</b> 23:7 68:8 70:7 78:22 93:17 96:7 124:2 148:8 155:7 172:12 195:16 197:3 206:9 212:17 213:2 220:20 253:13 268:8 280:14 <b>assign</b> 58:14 94:20 140:5 204:20 205:21 <b>assigned</b> 77:8 89:9 203:18 204:11 271:12 <b>assigning</b> 122:10 204:2,7 206:8 <b>assistance</b> 33:3	<b>Assistant</b> 5:14,19 <b>associate</b> 3:5 4:12 4:13 5:21 7:16 104:6,15 157:19 256:15 277:20 <b>associated</b> 27:4 67:6 69:9 98:4,11 112:16,17,19 217:3 238:4 <b>Association</b> 2:21 <b>assumed</b> 155:1 <b>assuming</b> 110:22 <b>assumption</b> 28:9 107:5 124:20,21 125:14 166:10 188:19 189:14 <b>assumptions</b> 15:16 18:21 24:7 25:8 26:8 27:10 31:14 32:21 33:6 49:13 69:11 73:21 77:15 87:10,17 90:17 91:18 98:11 100:4 107:1,19 112:16 112:18 117:5 118:22 121:14,18 121:19 122:4,6,9 122:11,16 123:21 124:5,6,11,14,16 125:4,7,8 126:13 126:21 129:14 131:6 154:21 157:4 185:1,2 197:16 201:3,4,15 208:12 232:3 248:11 250:6 261:13 264:4,10 265:9 277:9 <b>assurance</b> 2:6 4:6 132:5 176:11 187:10 217:11,18 275:4,8 <b>Atlantic</b> 149:13 <b>attacking</b> 36:16,16 36:17,18 <b>attempts</b> 185:22 186:1	<b>attending</b> 146:19 <b>attends</b> 198:20 <b>attention</b> 9:21 22:21 23:5 25:13 53:9 258:9 285:7 285:15 <b>attestation</b> 239:6 239:11 <b>attesting</b> 59:8,17 <b>attorney</b> 238:21 <b>attracted</b> 102:12 <b>attribute</b> 163:9 208:6 211:5 <b>attributes</b> 162:2 164:9,10,14 172:3 172:6 173:3,4 187:2 <b>attribution</b> 194:15 <b>AU</b> 13:15,16,18 59:22 61:16 63:15 <b>audit</b> 1:21 2:14 7:9 10:22 14:12,15,17 19:12,20 20:1,16 21:2,5,9 22:1,7,14 23:22 27:7 28:21 29:6,14 30:4,15 30:17 31:10 32:22 35:3 41:15,18 42:9,20 43:16 44:2,3 46:9,10,12 46:22 47:15,16 50:12 54:11,17 55:8 58:4 59:7,13 59:16,20 65:7 67:2,18,18 70:16 70:18 72:16 73:5 73:9 74:22 75:3 77:5,8,10,21,22 79:1 84:14 85:17 89:8,20 90:11 91:21,22 92:11 94:5,18 95:22 97:16 101:13 102:9 103:2,3 104:9,11 111:12 112:15 114:1,7,10 114:12 115:16
---	--	---	---	--

117:2,9 121:1,5,9 121:12 122:1,15 122:17,20 123:1,3 123:9 124:22 126:11 127:1,8,13 128:14,18,21 129:6 131:3,16 136:14,17 138:17 139:20 140:2,2,14 154:2 156:18 158:3 159:9 166:5 175:22 176:9 180:6 200:12 202:9 205:13,18 212:5 214:13,13 216:5,8,14 217:18 221:22 222:19,22 228:17 231:9,10 231:12,12 232:12 233:10 234:17 240:21 241:8 242:6,12 243:20 244:19 245:20 247:6 253:15 256:11 260:10,16 260:21 262:5,5 263:20 265:6 270:12 272:21 275:22 276:1,11 283:7,13,17 285:6 290:2 <b>auditable</b> 171:15 <b>audited</b> 67:20 91:2 111:18,22 120:14 <b>auditing</b> 4:6,8 7:8 9:16,20 10:13 11:1,13,16,17 12:9 13:3,14,16 13:16,19 14:2,17 16:6,13 17:3,12 17:13 20:18 32:4 36:9,9 50:11 51:4 56:4 58:6 59:5 65:3,6 66:14,19 67:14 70:14,16 76:3 81:7,8,9 84:3 84:20 95:15 96:2	96:11 99:6,19 101:14 104:12,17 105:13,15 106:8 112:9 116:11 117:15,19,20 120:15 127:2 138:19,21 142:8 197:13 198:2,8 209:7 211:18 212:2,5,6,10 214:5,6,12,18 215:3 221:20 228:9,14,17 229:12,18 235:15 237:7,15 238:17 238:17 239:3 241:21 242:21 251:3,22 254:16 263:18 266:17 270:11 275:3,4,18 276:6 282:3 283:15 287:16 <b>auditor</b> 1:17 3:12 5:14,17,18,20,21 5:22 7:9,17 8:6 14:14 15:2,16 19:18 22:21,22 24:6,11,14,16,18 25:12 26:1,6,7,14 27:1,8 28:6,6,21 31:3 35:5,13,19 36:1 49:19 50:19 53:7 55:1,1 62:6 64:8 66:12 83:4 85:3,4,5 86:1 87:12,15 98:13,20 100:3 101:12 104:11,17,18,19 108:8 109:8 117:12 130:10 132:15,19,20 137:18 140:15 188:6 189:4 201:6 201:7 202:16,22 203:16,20,22 205:2,9 206:16 207:5 208:3,9	209:22 210:11,18 211:15 218:6 219:2 236:19 237:15 249:1,18 253:17 255:2,3,9 255:11 256:10 263:2 267:10,16 275:4 278:12 283:16 287:15 288:7 <b>auditor's</b> 14:9,16 54:22 95:3,4,9,9 95:13,18 119:1 120:4 129:9 131:13 159:3,3 169:5 202:3 203:8 210:14 257:21 260:8,10 277:11 <b>auditors</b> 14:7 15:13 16:3 18:10,20 23:13,14 24:1 27:16 28:18 33:4 33:13,18 35:15 50:17 52:1,3,10 52:17,21 59:10,11 61:18,18 62:5 64:11 65:8 69:20 70:21 73:11,15 74:2 75:14,15 76:12,22 82:13,14 82:15 83:9 85:8 85:16 86:10 87:5 88:2,3 91:20 94:21 97:13,20,21 97:22 98:17 99:11 101:1,7 102:17 104:9 106:7 109:1 109:15,19 111:21 112:7 114:6 115:4 115:20 116:2,7,22 117:6,9,19 118:12 118:13,14 120:20 120:20 121:5,9,11 122:17,21 123:8,9 124:5,8,13,15 125:1,2 126:5,10 126:15 127:13	128:11,19 129:6 129:12,18 130:14 132:4,17 133:2 134:13 135:4 136:20 137:2,2,20 137:21 138:15 140:21 147:13 152:12 156:16,22 157:11 167:1,10 169:6,17 170:3 171:1 175:22 176:9 180:5,9 184:22 214:5 217:10 219:17 221:22 222:22 224:3 232:3,8,10 232:20 233:2 249:9,16 254:20 258:2 264:15 265:1,13,22 268:2 269:4 275:19 280:12 282:20 <b>audits</b> 16:15 18:11 20:4 42:6,7,9 43:12,12 53:20 63:11 85:2 89:9 92:11 102:8 114:8 158:22 169:20 232:13 243:1 <b>augmenting</b> 121:22 <b>August</b> 9:15 <b>auntie</b> 150:7 <b>Australia</b> 145:18 <b>Australian</b> 145:20 145:21 <b>author</b> 5:7 56:16 <b>authored</b> 93:2 <b>Authority</b> 4:5 <b>automatically</b> 227:22 <b>availability</b> 264:7 <b>available</b> 10:11 115:14 122:22 125:8,10 129:13 173:12 180:13,15 184:20 185:4 195:22 196:4	211:8 224:21,22 228:3,6,7 245:16 245:17 258:18 262:7,7 264:19 <b>Avenue</b> 1:10 <b>average</b> 103:9 161:4 <b>awareness</b> 202:11 241:10 <hr/> <b>B</b> <b>B</b> 1:15 2:8 3:8 <b>back</b> 42:4 59:6 65:6 66:12 72:17 73:8 73:13 74:1 77:22 78:8 80:9 82:3,11 84:19 86:9 87:21 89:7,15 102:4 115:10 119:3,13 120:2 121:20 122:7 124:18 140:16 141:12,19 141:21 149:10 151:5 155:19 166:4 174:15 177:22 180:1 182:15,16 214:4 221:15,17 223:9 228:1 230:17 237:18 240:12 241:7 242:19,21 242:22 246:2,9 249:5 274:7 289:12 <b>back-tested</b> 230:7 <b>backed</b> 234:2 245:9 <b>background</b> 65:16 135:9 143:15 251:2,14 290:2 <b>backwards</b> 116:17 <b>bake</b> 102:1 <b>Baker</b> 3:3 238:21 <b>balance</b> 24:4 26:4 59:17 101:17 108:7 144:3,9 145:17 152:9 245:5 <b>balances</b> 22:19
--	--	---	--	--

27:13 49:7 85:7 229:13 <b>bank</b> 42:6,7 151:5 196:21 <b>bank's</b> 18:9 <b>bankers</b> 147:13 <b>banking</b> 18:8,9 150:16 151:19 257:11 259:4 <b>bankrupt</b> 150:18 <b>banks</b> 18:11 146:10 148:7 150:10 152:2 153:21 155:17 204:4 <b>bar</b> 264:12 268:22 <b>Barb</b> 5:21 199:7 223:4,11 <b>Barbara</b> 7:16 16:8 277:2 284:8,11 286:12,12,14 290:7,13 <b>Barbara's</b> 50:22 277:2 <b>barely</b> 63:20 <b>barest</b> 65:19 <b>Barroso</b> 147:19 <b>Basal</b> 152:7 <b>base</b> 206:19 263:14 <b>based</b> 22:12 23:5 43:5 65:1 81:1 91:13 101:14 107:9,18 122:11 132:21 180:12 181:3 203:19 206:20 234:4 244:7 261:8 264:20 <b>basic</b> 130:19 177:6 188:1 225:2 233:12 266:12 285:19 <b>basically</b> 18:7 59:22 62:18 106:16 117:3 139:6 140:22 239:4 271:12 <b>basis</b> 14:15 50:12	54:2,20 60:5 62:8 65:9 86:14 93:15 122:9 127:15,16 140:17 145:22 150:18 153:15 169:18 194:6 195:6 208:12 244:18 260:16 279:18 <b>battle</b> 119:14 <b>Baumann</b> 1:10,17 8:3,5 20:11 34:2 35:10 38:8 41:2 45:4 48:10 50:22 53:10,15 54:3 55:16 63:3 66:5 76:18 78:8,19 81:21 84:15 85:21 89:7 92:6 97:1 99:1 100:10 102:3 103:19 120:8 132:7 135:20 138:10 139:17 141:4,21 157:15 160:16 175:8 179:17 181:11 184:4 187:8 189:16,21 197:19 208:17 210:12 211:10 215:5 216:15 217:19 219:8 220:7 221:8 221:19 253:22 256:20 266:6 269:7 271:10 272:2,10 275:14 276:8,22 280:15 281:11 282:12 284:2 286:8 289:14 290:6 <b>BBC</b> 148:2 <b>BDO</b> 2:14,14 <b>Bear</b> 196:19 <b>bears</b> 61:7 <b>beast</b> 172:11 <b>becoming</b> 138:5 171:20 196:7	<b>Bedard</b> 108:15,20 112:11 123:7 <b>began</b> 243:6 <b>beginning</b> 41:13 71:4 128:17 186:19 248:10 <b>beginnings</b> 59:15 186:13 <b>begun</b> 53:22 54:1 <b>behalf</b> 289:10 <b>behavior</b> 85:5 136:2 <b>behavioral</b> 85:13 102:11 136:1 227:17 228:8,20 236:20 289:3 <b>behaviors</b> 85:16 <b>beings</b> 51:22 52:3,9 <b>belief</b> 95:8 <b>believe</b> 63:13,18 75:10 80:17 82:17 92:15 94:22 97:8 149:11 173:10 200:11 203:16 205:17 210:14 258:17 278:21 279:8 283:18 <b>bells</b> 279:4 <b>benchmarks</b> 152:12 <b>beneficial</b> 131:22 200:10 <b>beneficiary</b> 213:12 <b>benefit</b> 8:20 60:22 61:18 82:2 110:20 148:16 202:9 264:19 286:18 289:11 <b>benefits</b> 93:8 <b>Berlusconi</b> 147:18 <b>best</b> 29:21 46:16 60:5 61:12 62:6 84:6 95:17 106:18 107:11 141:15 218:14 224:17 267:12 <b>Beswick</b> 96:8,14	<b>Beswick's</b> 153:1 <b>better</b> 35:21 37:16 60:18 78:1 88:5 98:18 102:15,17 102:22 103:4 111:12 120:12 127:15 155:16,21 156:2 170:13 183:11 186:20 218:16 223:6 229:3 239:18 242:3 246:18 252:20 275:15 <b>beyond</b> 12:19 159:8 160:4 195:7 228:13 237:9 274:11 <b>bias</b> 51:22 61:3 64:21 75:11 87:1 97:12 99:4 106:6 109:21 110:1,5,10 111:2,14,20 112:2 130:8,10,12,13 133:5 134:7,10,11 134:16,17 137:20 201:11 233:5 262:21 263:1 279:3 288:5,6,7 <b>biased</b> 111:6 129:18,19,21 <b>biases</b> 99:14 134:4 135:11,13,16 279:3 <b>bid</b> 162:13 166:18 <b>bids</b> 162:12 163:5 <b>big</b> 22:19 62:10 67:1 68:18 82:3 129:9 139:4 152:7 157:6 173:14 194:17 232:21 243:8 277:14,22 <b>biggest</b> 109:12 138:5 163:1 <b>bilateral</b> 191:22 <b>bill</b> 41:7 45:4 48:10 75:22 215:12 238:6,7	<b>billion</b> 150:6,12,14 150:15,17 151:10 <b>bio</b> 67:18 <b>biographies</b> 10:7 <b>bit</b> 9:11 21:6 25:17 28:17 38:2 42:8 47:18 66:9,16 68:15,16 71:3,8 72:6 80:5 86:9 88:14 113:19 115:2 120:9 125:1 141:9 169:7 172:5 179:18 191:19 203:9 211:12 242:17 250:8,11 252:18 257:19,21 259:16 270:16 282:13 <b>bite</b> 219:16,21 <b>biz-com</b> 212:17 <b>bizarre</b> 144:4 <b>black</b> 110:18 176:8 176:16 178:6 249:10 250:4,8 275:21 281:5 <b>Black-Scholes</b> 107:21 178:7 <b>blog</b> 5:7 56:17 <b>Bloomberg's</b> 196:2 <b>blow</b> 149:17 <b>blue</b> 113:9 145:11 <b>board</b> 1:1,12,13,14 1:14,15 2:6 4:6,7 4:8,11,12,16,17 4:20 5:8,8 7:2,3,5 7:5 9:8,10 12:8,16 14:3 19:7 20:2 21:18 37:10 40:10 41:20 42:4 90:1 97:8 99:5 138:6 142:3 146:20 147:5 168:19 174:6 190:11 195:13 198:12,13 198:20 199:1,8,14 216:3 217:8 219:19 220:3
---	--	--	--	---

222:6 233:10	<b>brands</b> 144:18	<b>broker-dealers</b>	192:1	227:19
234:18 283:15	145:3,6,14	257:12	<b>BVAL</b> 196:2	<b>card</b> 11:21 16:18
284:3,12	<b>Bratten</b> 110:17	<b>Brothers</b> 2:17		78:8 97:3 157:16
<b>Board's</b> 12:21 14:1	<b>breadth</b> 133:19	196:19	<b>C</b>	187:17 213:5
<b>boards</b> 90:2 138:4	288:9	<b>brought</b> 51:1	<b>C</b> 1:18 8:1	220:13 289:15
168:17,20 169:4	<b>break</b> 7:7 133:15	100:16 186:11	<b>calculated</b> 144:10	<b>cards</b> 20:20 34:3
222:4	148:9 221:14	256:7	<b>calculations</b> 27:1	41:3,7 51:11 75:9
<b>Bob</b> 34:5 81:5,6	277:1	<b>Brown</b> 2:17	64:17 77:16 179:4	100:11 133:12
86:5 89:14 111:11	<b>breakage</b> 213:5	<b>Bruce</b> 4:8 277:4	<b>calendar</b> 182:16	197:21 254:1
147:11 149:18	<b>breakdown</b> 248:14	281:11 282:12	<b>calendars</b> 8:15	266:8 276:22
222:2,8 223:2	<b>Breeden</b> 1:18,18	<b>brush</b> 260:5	<b>calibrated</b> 154:6	<b>care</b> 66:19,22 69:1
238:19 240:4	<b>Brian</b> 3:12 4:2,17	<b>bubble</b> 113:9	156:14	69:2 89:8
269:7 272:11,13	6:5 21:18,20,22	<b>buckets</b> 26:4	<b>call</b> 11:22 159:20	<b>career</b> 198:22
275:14 276:12	29:8 32:3 38:8	<b>buffers</b> 152:8,8	162:14 163:3	<b>careful</b> 218:22
278:9 280:21	40:11 41:2,3	<b>build</b> 169:14	165:4 166:9	260:4
<b>Bob's</b> 83:4 150:7	44:10 47:15 54:5	173:16 182:22	167:15 168:13	<b>carefully</b> 232:2
222:5 277:6	255:13 256:2	183:19 252:10	206:20 223:11	<b>Carlo</b> 164:6
<b>bodies</b> 198:17	280:15	<b>building</b> 1:9 2:10	234:22	<b>Carpenter</b> 3:4
<b>body</b> 51:20	<b>Brian's</b> 44:7	83:13 158:8	<b>called</b> 36:12 51:22	<b>carrier</b> 216:12
<b>boilerplate</b> 90:18	<b>brief</b> 13:9 65:18	175:16 176:3	105:1 191:17	278:1,2
<b>boils</b> 9:18	190:13 277:2	185:5	227:4,18 233:22	<b>carve</b> 122:8
<b>bond</b> 165:6,8	<b>briefly</b> 16:22 41:4	<b>builds</b> 155:22	234:5 238:3 275:1	<b>case</b> 40:2 63:5
226:22 230:5	50:5 121:7	<b>built</b> 63:22 136:10	<b>calls</b> 175:3 228:4	72:14 82:12 109:3
<b>bonds</b> 164:22 165:5	<b>bring</b> 99:22 109:19	194:16 232:8	<b>Canada</b> 29:16,18	127:19 135:8
165:11 230:5	138:6 145:13	<b>Buller</b> 1:19 78:9,20	32:3 41:16 45:14	155:14 183:10
245:3,3	191:16 193:3	209:8,9 210:7	<b>Canadian</b> 4:17,20	236:16 263:11
<b>book</b> 73:17 150:10	195:1 251:4,7	<b>bullet</b> 113:6 158:14	21:18 32:9,12	283:5
151:6,6,11 277:12	267:13,14 286:12	211:22 219:15	<b>candid</b> 192:5 194:2	<b>cases</b> 31:19 38:7
<b>booked</b> 285:4	<b>bringing</b> 48:18	285:12	195:6	111:18 158:1
<b>books</b> 150:22 151:3	49:10 287:15	<b>bunch</b> 9:18 73:15	<b>candidates</b> 197:10	225:16 245:13
255:16 256:1	<b>British</b> 150:10,16	177:1,2	<b>candidly</b> 247:2	280:3,4
<b>borne</b> 200:18	<b>broad</b> 95:1 195:8	<b>burden</b> 192:22	<b>Cangialosi</b> 1:20	<b>cash</b> 31:18 70:11
<b>borrow</b> 135:18	196:14 218:22	<b>business</b> 2:8 4:15	86:5,8	78:3 87:20 91:14
<b>bottle</b> 97:18,18,19	236:9 260:5	84:4 89:4 91:13	<b>Cannon</b> 108:15,19	101:19,19 144:13
<b>bottom</b> 95:21	<b>broadening</b> 143:18	93:6 146:1 192:14	112:10 123:7	226:14,15 227:7
<b>Botts</b> 238:22	<b>broadly</b> 216:5	197:13 214:1	<b>canoes</b> 278:6	234:6
<b>bought</b> 144:1	236:13,13 237:8	222:3 232:17	<b>capabilities</b> 263:16	<b>catch</b> 286:11
<b>boundaries</b> 185:11	274:20	233:16 258:9,12	<b>capability</b> 290:5	<b>categories</b> 43:7
<b>box</b> 176:9,16 178:6	<b>broadly</b> 18:18	258:14 268:9	<b>capable</b> 154:17	71:14 164:11
215:20 237:9	284:22 287:7	269:15 279:11	<b>capacity</b> 188:3,4,9	257:17
239:12 249:10	<b>Brodin</b> 4:10 6:17	<b>busy</b> 73:12 141:9	188:11	<b>categorizing</b>
250:4,8 269:19	142:20 160:19,20	<b>buy</b> 89:4 148:13	<b>capital</b> 1:18 111:9	170:13
275:21 281:5	176:15 182:10	166:14 172:11	111:17 152:8	<b>category</b> 28:2
<b>boxes</b> 163:15	183:15 185:3	182:6 183:13	276:6	43:14 67:17
<b>Brainerd</b> 2:2	188:12 189:20	196:18 258:13	<b>capitalization</b>	164:22 277:17
<b>brand</b> 144:9	<b>broker</b> 194:7,8,9	<b>buyers</b> 181:22	212:18	284:22
<b>BRANDON</b> 3:7	194:20	182:8 183:12,17	<b>capturing</b> 207:21	<b>Catherine</b> 238:9
			<b>CAQ</b> 108:19	

<b>causal</b> 45:15,22 46:15,17 47:19	75:11 79:21 81:5 86:2 88:3 91:2	100:3 141:2 160:7 174:7,10,11	282:17 283:14	8:5 21:19 62:21
<b>cause</b> 28:16 34:9 36:21 39:22 44:15	102:19 136:9 141:8 154:16	184:14 219:19 220:18 233:19	<b>changed</b> 36:8,10,14 63:17 68:2,10,13	96:8 100:1 143:6
45:16 46:18 53:17 74:7 158:11	181:7 192:13 196:16 197:14	249:3,8 250:8,12 251:22 259:14	68:16 85:15,15 91:5,7 146:13,14	144:22 190:3,5
213:22	208:21 209:6 233:13 235:11	260:3 265:9,16,21 267:11	151:9 185:19 212:8	<b>choice</b> 107:1 108:1
<b>caused</b> 148:4 154:5 212:7 214:4	237:10 240:8 241:7 254:5	<b>challenged</b> 33:14 63:18 66:14	<b>changes</b> 20:16 68:21 71:10 72:22	110:15
<b>causes</b> 39:17,22 40:8,17 44:17	255:16 256:15 257:1 258:4	<b>challenges</b> 31:9,16 32:2,8,10,22 34:9	85:3 93:20 124:20 149:19 167:14	<b>choose</b> 50:10
71:11,22 76:1 120:17 150:22	263:15 281:20 287:3 288:16	42:6,8 56:2 59:5 66:11 70:21 181:9	206:12 207:18,22 210:16 232:12,16	110:18 121:12
214:11 274:4	289:11	209:3 229:15,19 233:21 241:21	232:17,21,22	<b>chooses</b> 60:2
<b>causing</b> 113:15 212:9 214:6,10	<b>certainty</b> 231:5 <b>certifications</b> 290:1	255:8 257:22 258:20 259:6	<b>changing</b> 25:17 34:18 71:7 129:6	<b>choosing</b> 35:6
<b>caution</b> 151:16	<b>certified</b> 135:7 270:9	262:11 263:8 264:6,11 265:19	129:9,12 164:1 191:15 195:5	121:15 122:3
<b>cautious</b> 219:6 288:8	<b>cetera</b> 55:14 68:21 68:21 147:13	267:22 289:4	259:16	124:22 125:1
<b>caveat</b> 65:13,18 181:13	153:5 204:17 286:11	<b>challenging</b> 49:12 49:13,15,17 50:9	<b>channel</b> 213:5 <b>characteristics</b>	<b>chose</b> 109:15
<b>center</b> 2:4 3:6 51:9 94:5 222:19	<b>CFA</b> 5:6 56:21,22 66:20 68:17 78:12	69:20 71:8 73:5 78:7 85:16 94:13	47:3 104:19 106:5 106:14 172:3	<b>chosen</b> 211:3
<b>centralized</b> 243:3 243:11 254:7	94:4 197:8,9 198:15	100:5 108:21 109:15 114:5	213:21	<b>circle</b> 113:10
<b>centralizing</b> 243:6 284:20	<b>CFAs</b> 76:22 <b>CFO</b> 68:5	199:10 210:15,15 223:18 287:2,3,13	<b>characterize</b> 287:4 <b>characterized</b>	121:20
<b>CEO</b> 1:18 2:7,19 142:17	<b>CFOs</b> 228:4 <b>chain</b> 228:15	<b>chance</b> 10:4 165:2 193:2	107:11	<b>circumstance</b>
<b>CEOs</b> 135:8 228:4	<b>chair</b> 2:3 3:8 16:19 21:21 38:20,20	<b>Chancellor</b> 147:17 <b>change</b> 37:20 63:22	<b>charged</b> 34:16 <b>charges</b> 91:11	176:21 227:7
<b>certain</b> 8:4 13:17 64:10 68:1,9 71:4	85:17 89:20 143:9 231:11 238:6	85:5,13 102:11 113:11 121:5	<b>CHARLES</b> 2:3 <b>Charlie</b> 238:7	228:11
71:11 76:11 80:1 94:9 100:22	<b>chaired</b> 41:19 <b>chairman</b> 1:11,13	124:21 130:1 139:11 149:3,14	<b>chart</b> 10:8 71:8 108:22 190:19	<b>circumstances</b>
115:19 180:16 258:8 261:13,14	1:18,19 2:8 3:4,13 5:9 6:15 142:13	149:19,21 159:19 159:22 171:15	191:20 193:22	83:18 148:22
288:2	142:17 175:10 199:3 222:6	195:4 204:18 212:2,9,9 214:8	<b>chartered</b> 142:16 197:11	228:20 229:10
<b>certainly</b> 17:1,17 18:1 19:2,11 20:8	<b>challenge</b> 18:21 30:18 43:19 49:20	214:20 228:19,20 229:9,11 239:2	<b>chase</b> 122:1 <b>check</b> 34:4 49:14	<b>cited</b> 43:6 109:14
30:4,6,8,14,21 31:2,6,8,11,15	66:18 69:6 70:9 70:16 77:14 82:3	262:10 266:17 267:8 277:14,14	151:2 175:18 176:1 177:9	129:4
32:22 33:22 35:12 37:12 38:15 39:12			196:13	<b>claim</b> 112:7
40:5 44:1 48:2,13 50:7 61:2 68:12			<b>checklist</b> 125:18 <b>chew</b> 133:8 221:10	<b>clarification</b> 78:21
69:11 70:7 71:6 71:14 74:3,11			<b>chief</b> 1:17 2:1,20 3:1,10,12 4:17 5:1	<b>clarify</b> 257:2
			5:14,17,18,19,21 5:22 6:20 7:17	<b>clarifying</b> 18:8
				214:1 231:2
				<b>clarity</b> 97:22 98:9
				103:3 202:8
				216:13 217:11
				236:10
				<b>class</b> 61:14 207:15
				245:19
				<b>classes</b> 164:9 185:6
				244:6,19 245:1,2
				245:13 246:16
				247:4,9
				<b>classic</b> 192:2
				231:21
				<b>classified</b> 144:4
				<b>classrooms</b> 138:6,8
				<b>clear</b> 98:2 99:17
				107:2 111:15
				127:6 131:15
				136:12 200:12
				201:7,8 203:16

254:19 270:1	<b>collapsed</b> 146:19	118:11 126:13	41:5 49:12 53:11	176:9 228:18
284:10 285:13	<b>collateral</b> 207:15	159:17 164:15	75:4 76:18 80:7	290:3
<b>clearer</b> 218:13	<b>colleagues</b> 11:10	173:8 177:20	84:17 86:7 89:13	<b>common</b> 31:10
<b>clearing</b> 225:18	76:11 157:11	184:13 185:10	89:15 96:8 97:6	114:8 120:15
229:5	<b>collect</b> 207:20	188:6 208:8	98:2,12 99:2,3	153:6 155:20
<b>clearly</b> 15:2 17:11	<b>collected</b> 27:17	231:21 242:7,10	102:19 120:12	157:4 175:12
22:15 29:13 35:22	128:14	248:13 278:10	126:22 132:9	235:19 257:18
44:21 100:17	<b>collection</b> 201:3	<b>comfort</b> 270:2,11	133:15 141:4,7	<b>commonality</b> 75:17
113:2 117:13	<b>collective</b> 43:6	<b>comfortable</b>	153:2 157:19	75:18
118:10 153:17	<b>collectively</b> 44:5	116:15 187:12	158:10 160:11,17	<b>commonly</b> 266:12
227:4 241:20	160:10 219:20	243:15 245:10	175:8 189:17	<b>communicate</b>
242:21 252:22	220:4	248:5,9,13 249:16	190:13 196:14	119:2,4 192:5
253:7 286:6	<b>college</b> 139:10	249:22 250:2,2	197:20 201:7	254:9
<b>clicker</b> 66:8	<b>Colorado</b> 2:21	267:16 268:17	215:9 217:19	<b>communicated</b>
<b>client</b> 55:3 124:19	<b>colorized</b> 237:19	<b>coming</b> 25:9,9	220:7 221:12	217:15,16
174:16,17 179:16	<b>Columbia</b> 2:7,8	42:16 50:17,20	240:13 241:6,20	<b>communicating</b>
263:14 264:9	4:15,15 222:3,3	60:18 136:5	253:21 254:4,19	57:7
265:10,13 270:16	238:4,5	137:17 140:18	256:7 259:15	<b>communication</b>
<b>client's</b> 179:7	<b>column</b> 109:7	141:3 177:21	266:6 267:10	90:8 162:15
247:17	275:2	185:12,15 197:12	282:3 286:9 287:6	191:13 240:1
<b>cliente</b> 259:4	<b>combination</b> 17:6	201:12 202:13	288:12,20 289:2	254:11
<b>clients</b> 54:11 55:5	258:14 268:9	211:20 221:20	<b>commercial</b> 176:4	<b>communications</b>
65:11 144:1 167:1	<b>combinations</b>	230:9 232:4 248:8	<b>commission</b> 2:9 4:2	90:9 104:11
167:5,15 168:6,17	258:10 269:16	248:9 280:3	38:11 94:8 149:3	<b>community</b> 101:5
169:4 170:3,12,19	<b>combine</b> 283:20	<b>comment</b> 10:12,15	203:4	104:2 202:12
171:1,5 174:4,5,9	<b>combining</b> 102:13	10:16 13:1 16:1	<b>commissioned</b>	238:11 257:11
174:21 175:2	259:12 265:5	38:13 48:11,17	92:21 153:18	259:4 285:4 286:2
179:2 183:2,2	<b>come</b> 23:10,14	50:6 51:19 52:15	<b>Commissioner</b>	<b>companies</b> 25:19
229:18 257:8	26:21 34:3 39:9	72:4 75:5 78:10	237:18	67:20 73:16 79:1
264:16,16 267:1	63:12 74:9 86:1,9	78:14 100:15	<b>commissioners</b>	79:2 91:2 93:9,14
269:4	87:2,6,12,20 88:7	103:5 113:14	38:21	93:16,21 94:9
<b>close</b> 24:5,15 26:5	88:10 102:11	132:12,14 138:16	<b>commitment</b> 194:9	110:18 143:9
177:11 178:19	108:17,20 120:14	138:18 179:17	<b>committed</b> 250:17	148:19 150:21
205:5 289:9,14	127:1 140:15	180:8 197:6	<b>committee</b> 2:8 7:9	159:14 190:4
<b>closely</b> 15:1 18:14	141:2 147:1,14	208:22 209:11	57:3 72:7 83:15	191:8 204:4
85:4 259:17	155:13 157:3,8	211:21 219:14	85:17 89:20 91:22	209:19 212:22
<b>closer</b> 120:9,9,11	162:9 167:16,16	254:5 276:8 289:8	104:9,11 139:7	228:17 259:2
<b>closest</b> 190:17	167:17 168:17	290:7	143:10 169:1	281:8
<b>closing</b> 7:22 286:20	169:6,18 170:4	<b>commentary</b> 217:7	191:16 192:6	<b>company</b> 1:1 2:2,6
<b>co-author</b> 129:8	172:18 178:2	<b>commented</b> 265:10	194:4 204:1,20	2:12 4:16,19
<b>Co-operative</b> 151:5	179:2,7 184:12	<b>commenters</b> 10:18	209:12,16 221:22	43:12 55:22 56:1
<b>coaching</b> 29:5	194:19 204:15	11:5 133:9 181:1	222:19,22 231:10	67:20 78:15 88:7
<b>code</b> 96:19 179:8,8	208:22 220:5	<b>commenting</b> 34:16	231:10,12,13	91:1 99:12 140:17
179:10 245:17,18	224:10,17 229:1	<b>comments</b> 7:13,19	232:12 233:10,11	144:1,6 145:13
<b>codes</b> 180:15	235:9 242:6	11:7 12:1 13:9	234:17	184:18 209:14
<b>collaboration</b> 20:7	269:21 281:22	16:16 20:11 32:10	<b>committees</b> 91:22	222:17
20:8	<b>comes</b> 27:7 114:19	32:14 34:5 39:16	111:13 175:22	<b>company's</b> 15:13

79:14 141:2 236:4 <b>comparable</b> 93:11 189:2 <b>comparatively</b> 146:15 <b>compare</b> 24:4 116:16 144:14 184:12 244:12 <b>compared</b> 9:11 108:13 167:3 <b>compares</b> 108:22 <b>comparing</b> 108:9 109:20 115:15,17 140:16 <b>comparison</b> 109:2 <b>comparisons</b> 151:14 154:2 <b>compartmentaliz...</b> 260:4 <b>compelling</b> 279:14 <b>compensation</b> 110:20 259:1 <b>competence</b> 138:18 281:20 <b>competency</b> 138:20 <b>competitive</b> 267:21 <b>competitors</b> 252:8 <b>complaint</b> 90:19 <b>complete</b> 64:13 129:17 270:12 <b>completely</b> 72:12 80:6,14 147:4 150:4 181:14 229:6 <b>completeness</b> 217:11 <b>completing</b> 127:13 <b>completion</b> 212:20 <b>complex</b> 22:16 26:22 28:5 29:7 45:11 46:7 47:13 47:14 48:22 49:6 49:6 53:20 56:2 65:4 77:6,6,14 86:15 89:10,12 90:17 104:18 105:13 107:14	112:10,16 113:4 117:15 135:6 154:13 172:1 173:14 203:18 204:8 205:12 233:7 239:8 261:20 265:19,22 281:14 288:2 <b>complexities</b> 25:16 42:6 <b>complexity</b> 62:1 88:21 107:17 158:16,16 201:1 264:1 275:10 <b>complicated</b> 160:1 225:10 226:18 249:13 <b>complied</b> 39:11,14 40:7 <b>complying</b> 82:15 <b>component</b> 59:6 83:12 285:15 <b>components</b> 18:7 60:1 <b>comprehensive</b> 149:20 200:13 203:17 <b>comprehensively</b> 273:10 <b>compromises</b> 70:3 <b>computer</b> 49:22 <b>computer-genera...</b> 27:3 <b>concept</b> 101:8 129:1 <b>concepts</b> 13:7 51:3 74:18 78:3 99:18 235:9 260:9 <b>conceptualized</b> 181:18 <b>concern</b> 92:14 94:17 194:6 212:22 215:1 <b>concerned</b> 92:10 134:7 <b>concerning</b> 62:11 75:2	<b>concerns</b> 111:13 119:2 133:21 134:4 184:22 188:10 215:18 218:20 <b>conclude</b> 19:18 41:17 65:12 95:17 <b>concluded</b> 59:9 93:7 94:12 290:20 <b>concludes</b> 95:22 96:20 208:15 <b>conclusion</b> 98:10 140:18 204:16 210:22 236:12 <b>conclusions</b> 14:16 259:11 <b>concrete</b> 199:19 <b>condition</b> 116:20 <b>conditions</b> 93:13 161:16 195:4 <b>conductive</b> 62:3 <b>conduct</b> 96:19 <b>conducted</b> 12:12 12:21 21:5 41:20 43:12 95:7 102:9 104:2 118:15 120:18 137:1 205:11,12 <b>conducting</b> 12:17 45:1 <b>conducts</b> 21:14 <b>Conference</b> 255:15 <b>confidence</b> 98:21 103:15,15 155:22 194:11 <b>confident</b> 96:3 <b>confidentiality</b> 154:3 <b>confirmation</b> 51:22 122:5 137:20 <b>confirmatory</b> 75:11 <b>confirming</b> 52:1,7 121:13 133:5 247:16,18 <b>conflicting</b> 31:2 <b>confront</b> 61:2	<b>confrontations</b> 61:7 <b>confusion</b> 35:4,7 <b>congratulate</b> 39:5 <b>Congress</b> 149:18 <b>conjunction</b> 27:13 <b>Conn</b> 1:21 219:8,10 <b>connect</b> 246:11 251:13 <b>connected</b> 251:21 <b>Connecticut</b> 1:10 <b>connecting</b> 158:17 <b>conquering</b> 173:15 <b>consensus</b> 157:1 <b>Consequently</b> 62:6 <b>conservative</b> 152:3 <b>consider</b> 12:7 18:16 29:1 60:2 72:19 79:11 97:8 125:6 132:2,3 135:3 183:18 203:14 216:4 217:11 219:21 236:20 240:9 288:1 289:2 <b>consideration</b> 97:17 <b>considerations</b> 6:8 17:13 56:10 97:13 236:8 260:13 268:8 <b>considered</b> 16:4 27:12 33:9 134:18 184:17,18 200:6 283:15 <b>considering</b> 27:21 53:19 79:8 109:18 208:12 263:4 <b>consistency</b> 30:16 202:8 233:4 <b>consistent</b> 26:17 37:10 156:5 159:11 195:3 204:16 244:14 264:14 284:2 <b>consistently</b> 201:5 201:15	<b>consisting</b> 147:12 <b>consolidated</b> 203:2 <b>Consolidating</b> 131:18 <b>constantly</b> 235:22 252:7,12 <b>constitutes</b> 83:17 265:9 <b>constrained</b> 65:11 251:5 <b>constraint</b> 135:17 251:7 <b>construals</b> 138:1 <b>construct</b> 154:10 154:18 181:10 <b>constructive</b> 20:7 221:2 <b>consultants</b> 67:1 <b>consultation</b> 7:14 9:15 10:2,11,12 12:18,22 13:5,13 15:7,11,20 16:4 19:11 21:2 41:14 105:3 179:20 180:7 199:20 200:4 211:14 212:4 243:2 248:22 254:3,22 284:4 288:10 <b>consulted</b> 17:21 <b>Consulting</b> 2:20 <b>consumer</b> 173:11 <b>consumers</b> 66:21 <b>consumes</b> 267:7 <b>contacted</b> 149:6 <b>contain</b> 130:8 <b>contained</b> 94:11 <b>content</b> 62:14 203:5 <b>contention</b> 58:5 <b>contentious</b> 100:2 148:18 <b>CONTENTS</b> 6:1 <b>context</b> 72:21 76:8 89:5 97:11 136:16 233:17 <b>contingencies</b>
--	--	---	---	--

209:21 213:7 268:12 <b>continually</b> 241:17 <b>continue</b> 13:11 20:17 28:15 48:8 51:12 56:8 89:21 120:3 202:14 249:19 251:22 256:16 258:10 259:20 265:18,21 278:7 <b>continued</b> 265:12 <b>continues</b> 42:10 <b>continuing</b> 37:20 37:21 96:18 229:15 239:16 <b>continuous</b> 237:8 252:6 <b>continuum</b> 193:20 <b>contract</b> 214:2 <b>contracts</b> 30:12 213:18 <b>contradicted</b> 129:14 <b>contradiction</b> 176:13 <b>contradictory</b> 27:9 32:19 125:14 <b>contradicts</b> 125:10 <b>contrary</b> 29:1 35:19 36:1 <b>contribute</b> 16:12 42:2 118:21 <b>contributed</b> 28:13 43:4 <b>contribution</b> 103:20 221:9 <b>contributions</b> 9:2 56:7 97:2 102:16 <b>control</b> 54:13 77:4 77:11 123:17,17 160:4 174:3 177:9 185:15 191:8 244:3 256:4 263:4 263:6 <b>controlled</b> 171:9 <b>controller</b> 1:20	67:19 <b>controls</b> 15:9 27:3 55:22 79:14,21 123:20 124:1 155:16,19 163:12 163:18 167:9,21 168:3,22 169:1,11 169:15 171:6 184:19 185:7,16 185:18 186:21,22 186:22 210:2 231:20 242:15 250:10 <b>controversy</b> 58:20 <b>convened</b> 1:9 238:3 <b>conversation</b> 12:4 41:11 42:16 43:21 46:22 52:13 57:15 102:5 240:6 267:13 268:4 281:13 <b>conversations</b> 44:5 67:3 70:15 257:1 <b>converse</b> 53:6 <b>convert</b> 192:20 <b>cool</b> 61:9 <b>COONEY</b> 2:1 <b>cooperation</b> 19:14 20:5 <b>coordinate</b> 203:3 <b>coordinating</b> 22:3 31:9 <b>coordination</b> 270:19 <b>copy</b> 10:1 150:1 <b>core</b> 207:11 241:8 <b>Corp</b> 4:10 6:18 142:22 <b>Corp's</b> 142:21 <b>corporate</b> 2:4,4 3:6 3:15 111:12 134:20 216:20 226:22 245:3 279:10 <b>corporates</b> 162:7 <b>Corporation</b> 3:4 4:4	<b>correct</b> 205:19 274:2 <b>correlation</b> 54:9,12 54:16 213:9 <b>corroborated</b> 246:22 <b>COSO</b> 2:9 89:21 <b>cost</b> 69:4 148:22 149:5 182:6 183:10 221:2 264:19 <b>costs</b> 61:6 69:4 92:18 212:18,19 215:7 224:22 <b>council</b> 1:19 2:16 3:14 4:21 5:10 6:15 21:20 57:6 92:20 94:3 142:14 143:17 152:15 <b>Council's</b> 57:8,9 94:11 <b>counsel</b> 2:15 4:21 5:2 22:5 57:5 <b>counted</b> 227:15 <b>counter</b> 171:22 174:7 <b>counter-weighting</b> 279:13 <b>countries</b> 161:3 <b>country</b> 281:16,16 <b>counts</b> 227:12 <b>couple</b> 20:15 30:20 38:14 44:7 51:1 52:16 82:10 89:19 117:10 133:12 137:19 151:4 158:10 162:18 164:1 165:5,16 166:3,21,22 167:4 167:14 168:19 170:5 172:19,19 174:22 219:10 242:5 262:14 266:12,20 <b>course</b> 18:3 19:15 28:1 44:13 48:1 56:11 61:6 130:2	143:20 144:19 223:15 225:8 255:6 266:22 <b>courses</b> 138:22 <b>covenants</b> 172:6 <b>cover</b> 42:1 185:5 215:17 223:8 247:4,10 <b>covered</b> 9:12 43:12 71:19 84:19 202:8 246:16 <b>covering</b> 42:2 105:21 247:5 <b>cowboys</b> 153:11 <b>Cox</b> 2:2 238:20 277:4,6 <b>CPA</b> 60:19 <b>CPAB</b> 21:18,19 22:1 <b>CPAs</b> 65:14 88:20 153:8 <b>CPD</b> 153:5 <b>cracks</b> 31:22 <b>crashing</b> 147:1 216:2 <b>Cravath</b> 3:15 <b>create</b> 65:7 147:8 161:1 165:4,13 167:1,9 169:10 174:20 177:7 178:12 181:20 182:19 186:4 187:1 189:15 216:1,11 235:4 <b>created</b> 14:20 61:18 87:21 141:6 163:3,12 164:11 167:5 168:10 170:17,20 179:5 188:18 <b>creates</b> 124:12 174:19 196:5 <b>creating</b> 147:9 160:22 161:9 162:20 163:18 165:18,21 166:4,9 168:7,21 171:14	177:9,17 <b>creation</b> 200:7 <b>credentials</b> 67:6 250:3 264:13 <b>credibility</b> 158:6 <b>credit</b> 206:14,19 207:4,12,14,15,17 207:22 227:18 242:21 256:13 266:3 <b>credit's</b> 256:13 <b>credits</b> 165:9 <b>crisis</b> 42:7 68:5 92:20 98:5 107:3 143:20 146:12,13 146:17 148:3,5 195:17 223:14 225:8 227:18 229:8 242:22 280:4 <b>criteria</b> 134:14 156:6,7 213:21 <b>critical</b> 16:14 28:10 51:10 83:12 94:14 95:4 117:2 118:22 122:7 124:16 128:19 135:22 136:16 137:14 138:4,8 160:13 202:2 203:16 259:22 260:2 <b>critically</b> 125:5 137:5 <b>Croteau</b> 4:2 38:8,9 54:7 255:13 256:13 280:16 <b>crowd</b> 285:14 <b>crux</b> 51:19 <b>culminated</b> 17:11 <b>currencies</b> 161:3 <b>currency</b> 220:22 <b>current</b> 38:20 48:21 55:17 58:7 72:20 102:18 103:7 104:16 125:22 127:21 128:3 130:22
---	--	--	---	---



131:9 161:15	224:21 242:13,14	209:3 215:20	<b>deferring</b> 26:15	<b>demonstration</b>
181:18 206:21	242:15 248:2,7,8	257:17 258:15	28:6	139:2
213:13,20 227:2	252:5,7,8,13,17	265:17 281:6	<b>deficiencies</b> 21:3	<b>denominator</b>
238:6 252:14	253:7,8,13,18	282:21	46:19 47:20 54:14	175:12
<b>currently</b> 13:12	255:4,7 264:4	<b>deals</b> 20:22 200:1	92:11 94:18 95:22	<b>departing</b> 139:7
41:19 45:1 115:12	<b>Data's</b> 142:21	203:10 204:21	102:12 214:13,14	<b>department</b> 3:15
131:2 222:2 224:2	<b>database</b> 163:8	207:11 212:4	214:17 232:5	4:3 139:1,1
<b>curriculum</b> 117:19	<b>databases</b> 163:4,16	<b>dealt</b> 45:19 146:6	<b>deficiency</b> 29:14	<b>depend</b> 237:21
136:10	<b>date</b> 34:17 44:21	227:20 273:9	46:4	<b>dependent</b> 31:5
<b>Currie</b> 2:2	96:13 262:5	<b>death</b> 135:18	<b>deficient</b> 24:9 25:1	<b>depending</b> 40:1
<b>curve</b> 154:10	<b>David</b> 3:13 5:9 6:15	<b>debate</b> 217:17	<b>define</b> 107:10	188:3 195:4 257:8
164:21,22 165:4,5	142:13,15 143:12	224:1 274:4	<b>defined</b> 109:4	<b>depends</b> 283:11
<b>CUSIP</b> 188:7,7	157:15,20 160:18	<b>debt</b> 161:18 214:2	<b>defining</b> 161:12	<b>depiction</b> 275:12
<b>CUSIPs</b> 244:17	181:19 223:15	<b>decade</b> 150:13	214:7	<b>deploy</b> 241:16
<b>customer</b> 95:20	<b>David's</b> 160:11	200:21	<b>definitely</b> 25:6,7	<b>deployment</b> 243:9
221:5	<b>day</b> 12:5 16:7,8,10	<b>decades</b> 63:16	159:5	<b>Deposit</b> 4:4
<b>cut</b> 122:1	37:2 56:8 139:6	<b>December</b> 20:3	<b>definition</b> 53:1	<b>depository</b> 18:12
	146:22 147:20	<b>Dechow</b> 110:11	182:4 214:1 225:3	<b>Depreciable</b> 212:14
<b>D</b>	160:6 161:2,19	<b>decide</b> 213:20	235:9	<b>deprive</b> 94:13
<b>D</b> 1:14 2:2 3:3,12	164:17 165:22	233:20 234:3	<b>definitions</b> 227:15	<b>deprives</b> 61:21
8:1	167:3,7 168:4	236:3 273:19	236:10	<b>depth</b> 124:9 130:16
<b>D.C</b> 1:10	172:9 173:18	<b>decided</b> 58:14	<b>degree</b> 65:10 92:4	<b>Deputy</b> 5:17
<b>daily</b> 194:6 244:18	174:3,21 177:17	144:8 244:4	112:17,19 160:7	<b>derivative</b> 13:19
<b>DALKIN</b> 4:3	177:18 180:4	<b>deciding</b> 155:4	187:8 217:10	<b>derivatives</b> 146:11
<b>Dame</b> 115:12,13	188:14 191:5	<b>decimal</b> 155:14	276:18 286:2	225:10 226:2
<b>danced</b> 272:12	194:1,9 221:20	<b>decision</b> 51:21	<b>degrees</b> 237:21	229:4
<b>data</b> 4:10 6:18	230:4 266:22	185:12 234:8	251:16	<b>derived</b> 70:13 78:4
26:22 31:11 79:11	275:19 284:12,19	273:17,20 278:12	<b>Delaware</b> 2:5	<b>describe</b> 14:8 97:17
111:16,17 112:21	286:1 289:21	<b>decisions</b> 69:1	<b>deliberation</b> 144:8	153:16
115:8 123:5 125:9	290:10,18	103:17 104:9	<b>delighted</b> 8:12,16	<b>described</b> 121:11
125:9 131:5 134:1	<b>days</b> 138:14 144:2	115:3 137:4	<b>delineating</b> 252:20	244:14
134:17,19 137:13	172:19 238:13	209:15	<b>delivering</b> 82:7	<b>describes</b> 82:22
142:21,22 143:1,2	268:19 276:6	<b>deck</b> 193:14	<b>Deloitte</b> 3:2 5:5	<b>describing</b> 175:3
151:16 153:18	<b>DCF</b> 144:11	<b>decks</b> 284:11	202:18 222:11	182:2
154:7 157:5,11	<b>deadline</b> 10:16	<b>deep</b> 188:5,5,13	240:11	<b>design</b> 36:17 37:4
160:22 162:18	<b>deal</b> 146:16 153:4	189:12 205:7	<b>delve</b> 11:11	46:12,16 58:3
163:9,9,9 164:2	159:4,8,10 205:1	208:10 243:22	<b>demand</b> 95:14	164:5 263:13
166:10,10,12	216:7,12 238:16	251:2,4 253:5,5	192:1,2 214:10	<b>designation</b> 153:6
167:11,17 168:7,8	238:17 252:1	<b>deeper</b> 33:1 44:12	<b>demonstrate</b>	197:11
168:9 169:1 170:7	254:6 257:3,8,11	<b>deeply</b> 10:20 11:11	167:10 168:1	<b>designed</b> 176:8
170:11 171:8	258:19 259:4	175:14	170:14 215:11	<b>desires</b> 82:9
175:14,16 176:6	261:1 265:15	<b>defense</b> 231:21	<b>demonstrated</b>	<b>desk</b> 194:10
178:18 181:3	285:20	232:6 290:3	94:22	<b>desks</b> 196:21
184:9 188:19,19	<b>dealer</b> 162:12	<b>defer</b> 53:13	<b>demonstrates</b>	<b>despite</b> 61:3 149:4
189:14,14 194:17	166:14,15	<b>deferral</b> 221:3	210:11	193:14 284:15
194:17,18,18	<b>dealing</b> 58:10,18	<b>deferred</b> 213:2	<b>demonstrating</b>	<b>destroy</b> 224:10
195:2 201:3,4,15	133:4 142:4 198:3	215:7	169:15	<b>detail</b> 21:7 66:13
203:13 207:20				

201:18 248:2	<b>devoted</b> 22:21	114:1,10,12	<b>disavow</b> 54:6	57:10,13 103:21
<b>detailed</b> 47:8 80:17	<b>diagram</b> 105:8	119:10 122:20	<b>discipline</b> 69:16	105:4 135:15
156:4 231:20	<b>dialog</b> 266:5	123:1,9 125:16,17	91:10	139:8 158:11
232:14 235:20	<b>dialogue</b> 10:21	128:11 152:11	<b>disclaimer</b> 9:4	159:6 191:1,7
236:14 264:10	16:11 20:5,17	154:1 192:18,19	211:13	192:13 194:3
<b>details</b> 71:1 254:10	40:20 51:13 84:16	193:12 228:10,10	<b>disclosed</b> 98:6	198:9 199:9,11,12
<b>detect</b> 233:5	100:17 240:6	228:10 236:21	198:10	209:10 232:12
<b>detection</b> 104:19	241:13 242:14	265:5	<b>disclosing</b> 166:10	237:6 238:13
<b>determination</b>	267:15	<b>difficulties</b> 151:8	<b>disclosure</b> 93:22	273:13 280:17,21
244:7	<b>differed</b> 285:3	289:6	98:1 101:3 116:21	288:5 289:4
<b>determinations</b>	<b>difference</b> 78:6	<b>difficulty</b> 118:21	149:9 151:2,17	290:15
79:17 261:4	80:13 81:7 85:18	124:12,16 126:12	153:15 160:2	<b>discussions</b> 13:1,8
<b>determinative</b> 55:8	128:5 140:22	137:12 233:18	218:9 236:5	130:18 167:19
<b>determine</b> 91:16	157:6 191:21	273:2 286:2	239:14 276:13,18	203:20 204:7
128:12,14	280:20	<b>digestible</b> 216:12	<b>disclosures</b> 13:17	210:1 220:14
<b>determined</b> 105:15	<b>differences</b> 58:11	<b>digesting</b> 161:21	17:5 69:9 76:12	<b>dismiss</b> 126:17
108:6 116:1	89:1 114:18	186:19	92:16 117:8	<b>disorderly</b> 286:3
208:11 272:7	121:18,21 151:22	<b>dilemma</b> 101:21	146:15 156:2	<b>display</b> 166:20
<b>determining</b> 12:14	153:13 154:5,9,11	<b>diligence</b> 167:15	235:21 236:1	<b>disquieting</b> 270:17
15:14 33:14 60:16	181:8	168:16 169:6,19	<b>discomfort</b> 274:4	<b>disservice</b> 61:20
79:15 214:1 265:2	<b>different</b> 8:22	196:10 243:15,17	<b>disconfirm</b> 247:17	<b>distinct</b> 99:17
280:13	11:12,14 23:15,16	243:18,20 244:8	<b>disconfirming</b> 52:8	<b>distinction</b> 107:13
<b>develop</b> 27:19 48:5	24:11,19,20 31:1	246:6,19,22 254:8	133:6 247:12	182:5 252:16
136:15 200:22	43:5 46:6 60:10	<b>DINGWALL</b> 4:3	<b>discount</b> 31:15	<b>distinguished</b>
203:13 207:1	69:21 70:2 80:10	<b>direct</b> 15:2 35:22	78:4 88:3 110:12	11:11 198:21
215:16 219:17	80:11 88:7,22	60:5	213:19	<b>distinguishing</b>
248:11 250:22	89:4,5,5 106:20	<b>direction</b> 158:15,19	<b>discounted</b> 226:14	213:21
<b>developed</b> 200:4	108:2 118:5 138:2	259:21 288:17	227:7 234:7	<b>distress</b> 225:5
211:3 212:12	154:12,14 155:1	<b>directionally</b> 274:1	<b>discovered</b> 145:2	226:10
216:7 284:12	159:17 161:2,3	<b>directions</b> 279:14	149:2	<b>distributed</b> 10:1
285:12	164:9 172:5,6	<b>directly</b> 32:11	<b>discovering</b> 155:3	<b>distribution</b> 193:21
<b>developing</b> 11:4	177:2 178:6 186:6	50:14 134:20	<b>discovery</b> 162:14	<b>dive</b> 188:5,13
15:16 16:13 24:8	209:1,5 211:18	239:8	166:22	189:12 243:22
27:18 57:7 156:4	223:21 228:16,21	<b>director</b> 1:17 2:4	<b>discuss</b> 21:6,11	<b>diverse</b> 23:17
203:2 207:13	230:16 231:1	2:10,11,11 3:6,7	95:9 104:2 194:18	142:10
209:7 223:20	235:18,19 237:20	4:10,18,18,20 5:1	195:6 288:10	<b>diversified</b> 134:9
261:9,17	239:5,6 258:9	5:3,15 6:17,20 8:6	<b>discussed</b> 16:10	134:10
<b>development</b> 87:9	264:2 268:20	21:12,19 22:1,5	65:15 163:5 193:9	<b>dives</b> 188:5
192:10 193:7,8,8	269:3 275:7,8,18	93:4 142:20 143:6	223:9 280:21	<b>division</b> 5:3,15
195:1,19 223:19	276:19	198:14 199:1	287:8 288:21	21:13,14
243:10 251:10,12	<b>differentiate</b>	222:16,16	<b>discussing</b> 13:13	<b>doctoral</b> 93:5
<b>developments</b> 6:14	253:16	<b>directors</b> 1:12	58:14 63:11	<b>document</b> 242:13
7:1 142:4 190:9	<b>differently</b> 211:12	195:14,17 234:19	147:19 209:17	260:16
190:11 195:7,9	<b>differing</b> 89:10	<b>dirt</b> 63:8	217:1	<b>documentation</b>
196:5,15 198:1,5	<b>difficult</b> 25:12	<b>disagree</b> 83:19	<b>discussion</b> 7:15	90:4 98:3
<b>devil</b> 284:16	31:17 103:6,8	106:18	19:6 39:2 40:18	<b>documented</b> 55:2,3
<b>devoid</b> 80:14	112:8,15 113:22	<b>disappointed</b> 36:22	45:9 53:13 56:5	110:1 260:19

<b>documenting</b> 54:18 54:18 118:13 248:5	<b>drawn</b> 71:1	76:20 136:3	131:7	287:14
<b>doing</b> 22:13 23:4 23:13 27:21 28:22 37:2 38:5 44:9 52:12 54:9 55:12 68:10 73:12 77:13 78:5 92:1,1 120:19 121:14 122:7 125:6 136:12,13,14 137:3 140:1 152:16 153:3 168:4,8,18 169:20 171:2,3 186:17 189:12,18 212:1 229:16,16 240:18 241:4,8 243:14 246:13 272:1 279:13	<b>drilling</b> 40:6	<b>earnings</b> 63:7 110:6 128:8 134:21 274:18	<b>effects</b> 124:13 135:18	<b>empirical</b> 134:1
<b>dollar</b> 116:8	<b>drills</b> 203:9	<b>ease</b> 192:22	<b>efficiencies</b> 165:12	<b>employ</b> 70:18 164:4 165:12 173:2 178:21 271:12
<b>dollars</b> 145:21 225:11	<b>drive</b> 29:19 33:19 35:2 46:3 47:5,9 89:21 124:17 210:21 216:13	<b>easier</b> 54:16,22 266:4	<b>efficiency</b> 164:18	<b>employed</b> 179:13 179:14 271:16
<b>domain</b> 153:22	<b>driver</b> 59:7	<b>easy</b> 19:8 60:20 87:11 156:1 257:2 289:21	<b>efficient</b> 79:1 121:15 162:21 165:14 186:19	<b>employees</b> 2:21 257:7 271:18
<b>dominant</b> 56:13	<b>drivers</b> 65:1 220:16 220:17	<b>Eccles</b> 2:17	<b>effort</b> 25:8 41:1 129:16 175:15 208:19 219:12 224:22 272:16	<b>employer</b> 61:10
<b>DOMINIKA</b> 5:19	<b>drives</b> 37:13 46:21 89:5	<b>echo</b> 96:7 99:19 219:13,15	<b>efforts</b> 22:7 40:5 94:6 167:21	<b>Employment</b> 190:18
<b>Donaldson</b> 238:7	<b>driving</b> 33:20 37:22 47:21	<b>echoes</b> 30:3	<b>eight</b> 63:20	<b>empty</b> 97:18,19
<b>Doty</b> 1:13 175:10 175:11 238:22	<b>drug</b> 87:11 175:20	<b>economic</b> 72:20 93:21 122:10 134:16 190:22 207:18 208:13 215:20 279:16	<b>either</b> 77:20 118:1 120:19 135:10 136:4 208:6 229:7 232:6 247:16 256:10 263:6	<b>enable</b> 62:12 98:9 98:18
<b>Doty's</b> 179:18 184:17	<b>dry</b> 182:16	<b>economic-based</b> 124:11	<b>elaborate</b> 207:2	<b>enables</b> 78:17
<b>doubt</b> 48:20 60:22	<b>due</b> 97:16 115:7 134:8 149:15 167:15 168:16 169:6,19 196:9 232:11 243:15,17 243:18,19 244:8 246:5,19,22 254:8 256:13	<b>economically</b> 70:13 75:20	<b>element</b> 30:12 159:4,6 194:22	<b>encourage</b> 10:15 11:19 40:5 48:7 63:19 65:17 130:22 134:2 286:4
<b>doubtful</b> 25:18 77:7 81:8,10,16	<b>Duff</b> 5:1 6:20 143:6	<b>economics</b> 117:17 139:14 193:4	<b>elements</b> 95:12 261:10 262:9	<b>encouraged</b> 18:4 33:17
<b>Doug</b> 97:3 99:21 100:10 289:15,17	<b>Duke</b> 2:3	<b>economy</b> 258:11	<b>eligible</b> 221:2	<b>encouragement</b> 130:19,21
<b>Douglas</b> 2:16 7:20	<b>duration</b> 213:18	<b>ecstatic</b> 78:11	<b>eliminate</b> 157:3	<b>encouraging</b> 40:18 194:2 284:18
<b>download</b> 170:21 188:18,19,20	<b>dynamic</b> 186:3	<b>Edgar</b> 2:3	<b>eliminated</b> 134:9	<b>ended</b> 146:10 247:5
<b>downloads</b> 170:20	<b>dynamics</b> 2:19 98:10	<b>edge</b> 11:22	<b>elimination</b> 206:13	<b>endorse</b> 98:12 200:6 201:16
<b>drafted</b> 50:7 219:7	<hr/> <b>E</b> <hr/>	<b>educated</b> 141:5	<b>ELIZABETH</b> 4:5	<b>endowment</b> 204:4
<b>drafting</b> 208:20	<b>E</b> 1:19 8:1,1	<b>educating</b> 92:21 168:5 169:3	<b>ELSON</b> 2:3	<b>ends</b> 186:13
<b>dramatic</b> 134:19 212:1	<b>Eager</b> 237:3	<b>education</b> 74:5,15 75:2 76:2 96:17 96:18 135:9 193:1 193:2,11,11 205:1 207:9 238:16 265:12	<b>email</b> 163:15 249:15	<b>enforcement</b> 38:18 103:3
<b>dramatically</b> 59:18	<b>earlier</b> 12:20 13:4 16:5 51:19 55:17 81:4 102:5 124:4 132:11 145:3 152:21 157:21 158:5,11 159:7 163:5 168:10 170:17 171:22 176:19 178:5 185:3 188:9 197:7 215:13 220:14 254:19 277:21 279:2,8	<b>educational</b> 37:3 236:17	<b>emanated</b> 226:18	<b>engage</b> 10:20 18:4 52:5 64:5 77:19 167:15 261:6 271:13,17 272:8 283:3
<b>draw</b> 102:14 189:1	<b>early</b> 9:4 20:3 29:4	<b>effect</b> 34:9,19 110:14 135:2 155:2 177:3 258:13	<b>embedded</b> 37:1 124:11 276:18	<b>engaged</b> 24:11 64:9 203:21 253:3 265:8 268:11 290:4
		<b>effective</b> 37:22 128:21 207:6,21	<b>Emerging</b> 199:4	<b>engagement</b> 29:4 31:10,20 37:11 40:1 47:5 61:1,13
		<b>effectively</b> 119:2,5	<b>emeritus</b> 56:18	
			<b>eminent</b> 238:2,21	
			<b>EMMA</b> 196:3	
			<b>emphasis</b> 97:7 201:10 217:5 265:12	
			<b>emphasize</b> 203:5 287:13	
			<b>emphasized</b> 51:5	
			<b>emphasizing</b> 77:12	

62:3 64:16 67:2 73:7 98:19 122:14 126:2 246:5,11,12 246:14,20,21 247:1 254:10,13 271:19,21 272:1 <b>engagements</b> 53:19 59:16,20 62:12 73:6 83:6 <b>engaging</b> 261:21 264:11 272:3,6 <b>engendered</b> 134:21 <b>enhanced</b> 77:4 98:13 <b>enhancement</b> 98:20 <b>enhancements</b> 17:16 203:12 <b>enhancing</b> 247:7 260:1 <b>enlightened</b> 289:19 <b>enlightening</b> 257:2 <b>enormous</b> 284:15 <b>ensure</b> 79:8 97:22 203:6 205:17 206:2 246:20 <b>enter</b> 197:4 <b>entire</b> 61:14 150:17 260:16 278:13 <b>entirely</b> 13:15 <b>entirety</b> 90:22 <b>entities</b> 18:19 151:15 261:4 263:11,21 <b>entitle</b> 201:20 <b>entity</b> 206:18 208:7 <b>entry</b> 153:5 <b>envious</b> 263:8 <b>environment</b> 58:7 73:19 106:5 113:11 171:9 208:13 214:20 215:2 232:17 263:5,6 <b>environments</b> 186:7 <b>envision</b> 80:21	<b>equal</b> 192:12 <b>equally</b> 202:9 <b>equates</b> 26:4 <b>equipments</b> 213:10 <b>equity</b> 152:4 173:17 214:3 226:22 <b>Ernst</b> 3:9 <b>errors</b> 154:6 <b>erudite</b> 284:13 <b>escape</b> 148:20 <b>escapes</b> 83:21 <b>especially</b> 42:13 77:5 125:16 130:8 136:17 148:19 182:17 187:14 249:20 289:5 <b>essentially</b> 62:15 94:10 202:20 225:12 <b>establish</b> 96:16 <b>established</b> 51:20 230:6 <b>estate</b> 146:3 268:13 <b>estimate</b> 15:14,17 24:8 27:17,20 28:10 33:14 35:17 35:20,21 46:5 47:10 62:9 64:6 67:22 69:15,22 72:14 75:8,11,15 75:16 79:17 81:15 90:3 91:4 101:9 101:16,20 106:21 107:5,6 108:6,8,9 108:9 115:7 116:2 116:21 121:16,17 121:19,20 122:6,8 122:10,14,20 124:14,17,21 125:5,11,12,19 127:17,19 128:2,5 128:6,9 129:2,7 129:15,18,19,21 131:4 132:5 136:6 141:10,12,15 193:18 194:5	203:7,8,14 209:2 226:15 230:14 231:22 233:7 253:2 259:6 261:10,12,14,17 261:20 262:22 287:20 <b>estimate's</b> 128:12 <b>estimated</b> 65:1 152:3 161:19 <b>estimates</b> 7:1,8 9:16,19 10:14 11:1,13,16 12:9 13:16 14:11,22 15:5 16:6,14 17:4 17:4,7 18:22 20:9 20:18 22:15 27:7 27:10 30:4,7,7 33:2 43:20 46:6,7 51:2,6 56:2,13 59:8,18 63:12,22 64:1 66:10,19,21 67:21 68:3,11,17 68:19 69:3,4,7,21 70:2,10,12 72:11 73:20 76:12 77:6 78:12 79:20,22 81:2 85:1,6 89:10 89:12 90:17 91:14 92:12 93:20 94:21 95:5,11 98:16 99:15,19 101:18 102:7 104:3,18 105:13 106:6,6,8 106:14 107:12,14 108:5 109:21 110:2 111:5,6,8 111:10,14 112:10 115:15,18 117:15 118:18 119:1 120:14,16 121:1,6 121:9 122:21 123:1,4,10 128:18 128:20 130:8,11 131:17 132:21 133:4 136:20 138:20 141:2,11	142:7,9 156:17 190:14,17,19 191:9,9,11,14,21 193:19 200:20,22 202:13 205:7,12 207:6 208:2 211:20,20 212:5 212:12 213:12,15 213:22 214:5,9,10 214:11,14 215:6 215:17 216:5 218:2,12 220:10 220:15,16 224:17 230:9 239:9 240:16,17,18 241:2,16,18,22 247:22 250:17,18 257:18 258:3,8,22 259:10 261:3,7,19 262:3 265:15,16 266:1,14 274:10 274:13 277:10 282:10 283:22 284:22 287:17 288:2,6,9,14 <b>estimation</b> 33:15 106:19,19 108:12 109:3,4,9,10,13 109:18 111:1 114:13,17 115:8 117:5 123:14 127:3,7,9,10 131:14,21 132:1 133:22 134:4,8,12 229:22 230:13 233:15 234:6 <b>et</b> 55:14 68:21,21 118:11 147:13 153:5 204:17 286:11 <b>etcetera</b> 20:9 <b>ethics</b> 96:19 <b>Europe</b> 85:3,8 95:16 148:19 149:21 <b>European</b> 149:2,12 <b>evaluate</b> 31:17 33:5	33:18 62:7 77:19 122:13 124:10,13 161:5 204:15 207:13 208:3 250:1,10 <b>Evaluated</b> 4:10 6:17 <b>evaluating</b> 15:14 31:2,11,13 32:18 122:18 124:6,17 125:5,19 126:13 201:15 204:7 205:6,9,11 207:6 211:19 252:12 279:6 <b>evaluation</b> 79:3 94:21 122:8 126:22 142:22 143:1,3 161:4,12 161:13 162:5 163:21 164:2,3 165:17,21 166:6 167:3 168:11 169:13 170:15,16 173:21 176:20 177:4,7 179:1 182:10,13,20 183:3,5 184:2 186:18 201:10 210:3 213:8 253:4 264:15 266:19 280:11 <b>evaluations</b> 161:1,1 161:9 165:14 166:2,5 167:7,11 168:7,21 169:10 169:21 174:11,20 175:2 177:8,15,18 178:12 179:4 183:6,20 186:20 187:1 <b>evaluator</b> 31:8,19 163:11,19 165:3 166:11 <b>evaluator's</b> 165:19 <b>evaluators</b> 31:12 161:20 163:14
---	---	--	--	---

164:17,19 167:18 168:2,4 <b>event</b> 206:16 262:11 <b>events</b> 93:21 112:20 123:5 131:5 159:21 207:18,19 262:1 284:9 <b>eventually</b> 144:17 147:15 <b>everybody</b> 8:5 51:9 142:1 175:4,5 279:1 290:11 <b>everyone's</b> 170:12 <b>evidence</b> 14:15,17 15:22 18:21 19:13 27:9,11 29:1 31:3 32:18,19 35:16,18 36:1,2 49:16 52:1 52:7,8,18 75:13 126:20 128:14 131:4,8,16 133:6 137:22 159:20 <b>evident</b> 171:20 288:15 <b>evidential</b> 119:12 <b>evolution</b> 59:19 74:17 240:16 241:1 242:20 <b>evolve</b> 239:3 <b>evolved</b> 74:16 170:9 207:14 <b>evolves</b> 171:19 <b>evolving</b> 11:1 142:6 170:8,8 <b>exacerbate</b> 125:20 <b>exactly</b> 54:7 87:18 91:6 92:1 106:22 150:1 172:7 178:18 207:3 235:2 270:1 <b>exam</b> 60:19 62:15 <b>examination</b> 262:19 <b>examine</b> 121:4 128:18	<b>examined</b> 59:13 126:21 128:19 <b>examines</b> 104:8 <b>example</b> 19:12 53:21 95:6 127:12 151:4 156:6 165:8 190:22 196:2 209:17 230:4,16 233:21 235:6 245:8 253:3 <b>examples</b> 32:7,7 <b>exams</b> 60:16 61:15 153:5 <b>exceed</b> 135:15 288:3 <b>exceeded</b> 123:15 <b>exceeds</b> 128:4,6 132:16 <b>excellent</b> 19:10 45:11 50:6 54:17 88:15 99:16 <b>exception</b> 52:2 231:4 281:9 <b>exceptions</b> 171:8 236:3 <b>exchange</b> 4:2 94:8 143:8 154:20 173:17 <b>exchanges</b> 229:5 <b>exciting</b> 277:8 <b>exclamation</b> 41:5 99:20 <b>exclusively</b> 283:7 <b>Excuse</b> 84:8 <b>execute</b> 160:7 <b>executing</b> 265:6 <b>execution</b> 36:19 37:5 71:20 73:2 158:22 <b>executive</b> 4:17 21:19 99:9,13 222:19 <b>Executive-in-Res...</b> 2:7 4:15 222:2 <b>exercise</b> 26:2 151:16 196:9 230:2 232:11	<b>exercised</b> 68:7 <b>exercising</b> 97:15 195:14 201:4 <b>exert</b> 49:20 <b>exhausted</b> 131:22 <b>exhaustive</b> 215:5 215:11 <b>exist</b> 66:2 71:12 107:3 155:15 256:19 <b>existed</b> 256:18 <b>existence</b> 61:17 <b>existing</b> 12:8 13:15 14:17,20 15:19 34:12 36:17 49:1 58:3 93:12 96:2 203:12 208:14,14 256:17 266:17 <b>exists</b> 75:12 127:8 128:15 <b>exit</b> 181:19 182:10 182:12 183:10,11 <b>expanded</b> 159:3 239:21 <b>expansion</b> 258:12 <b>expansive</b> 43:13 <b>expect</b> 87:18 88:1 210:18 236:18 <b>expectation</b> 34:17 201:21 <b>expectations</b> 140:13 206:21 240:3 <b>expected</b> 20:1 206:14,19 207:4 209:1,4 216:8 263:1 266:3 <b>experience</b> 19:17 43:6 62:20 67:15 74:6 76:2 77:9,13 85:3 86:11 89:11 96:17 114:5 118:20 133:3 161:6,7,9 203:19 204:13 205:2,14 205:19,20 206:5 222:5 236:9	251:17 269:8 <b>experienced</b> 120:19 127:1 170:7 202:17 204:19 290:1 <b>experiences</b> 82:2 108:21 112:12 <b>experiment</b> 78:21 116:20 <b>experimental</b> 115:17 121:4,6 <b>experimenting</b> 96:6 <b>experiments</b> 128:19 <b>expert</b> 28:9 87:14 <b>expertise</b> 77:9,14 77:19 89:11 103:10 119:19 142:11 143:3 158:2 173:21 226:20 251:4 263:14 264:8 265:14 <b>experts</b> 49:16 65:2 106:17 147:13 158:4,6 224:2 <b>explain</b> 42:8 63:11 80:12 <b>explained</b> 98:9 112:7 181:19 <b>explaining</b> 231:15 <b>explanation</b> 97:22 <b>explanations</b> 217:12 <b>explicit</b> 77:16 275:5 <b>explicitly</b> 59:11 275:6 <b>explore</b> 10:20 35:19 184:14 219:12 248:21 249:16 <b>explores</b> 15:20 <b>exploring</b> 19:14 <b>expose</b> 150:5 <b>express</b> 34:5	<b>expressed</b> 9:5 11:6 20:6 93:3 95:8 96:9 133:21 142:1 <b>extend</b> 217:17 <b>extensive</b> 222:5 244:11 246:5 252:9 <b>extensively</b> 29:20 90:10,13 <b>extent</b> 56:1 79:11 79:12,16 84:9 95:21 111:21 112:1 180:17 187:14 196:7 212:8 230:13 255:20 260:15 283:12 <b>external</b> 18:10 126:8 159:20 195:19 196:14 266:16 283:4 287:20 <b>externally</b> 195:9 282:17 <b>extrapolate</b> 157:5 164:13 <b>extrapolating</b> 162:1 179:14 <b>extreme</b> 93:13 127:3 131:14,20 132:1 182:7 183:10 <b>extremely</b> 47:13,14 52:16 55:11 284:13 <b>eye</b> 279:1 <b>eyes</b> 78:16 190:8
<b>F</b>				
<b>F</b> 1:17 2:17				
<b>face</b> 101:22 112:8 181:9				
<b>faced</b> 101:1,12 108:8				
<b>fact</b> 26:9 37:12,18 42:10 67:4 69:14 76:14 81:1 82:7 83:11 84:7,10				

87:1,19 88:6 100:21 101:10,13 107:6 144:16 149:22 152:19 159:19 179:20 202:21 218:7 258:7 275:14 278:3 <b>fact-based</b> 81:19 82:8 <b>factor</b> 35:7 46:15 59:9 94:17 <b>factors</b> 45:16,22 46:17 47:19 84:10 92:14 104:17 112:8,14,18 192:7 192:7 193:5,6 214:19 256:12 287:21 <b>facts</b> 64:10 79:8 107:18 <b>factual</b> 64:11 81:1 270:3,4 <b>faculty</b> 93:4 <b>fail</b> 125:6,7,9 126:18 <b>failed</b> 24:6,16,18 26:6,8 <b>failures</b> 48:20 <b>fair</b> 9:17,19 10:14 11:1,13,16 12:9 12:14 13:16 14:11 14:22 15:5 16:6 16:14 17:4,7 18:22 20:9,18 22:14 24:8 25:10 25:16 30:7,10,12 36:13 42:15 43:8 44:13,15,22 46:10 46:10 51:2,5 56:2 56:12 57:22 64:3 64:6 66:19,21 68:19 69:7,11,22 70:11 72:14 77:6 81:7,14 85:2,6 86:13 92:12,15 93:1,7,20 94:5,9	94:12,16 98:11,15 99:19 100:3,17,18 101:9 102:7 104:3 104:12 105:13 106:14 107:13 108:21 109:5 110:2 112:9,9,11 112:12 117:15 118:15 123:9,11 131:17 133:3 138:20 142:6,9 143:18 146:11 148:20,22 149:8 149:19 150:3,5,18 150:21 151:10,14 156:5,16 157:9 182:4 183:21 191:22,22 200:20 201:13 208:6 211:3 213:12 214:9,10,11,15 215:17,21 216:5 218:2 223:10,20 225:3 229:20,21 231:13 234:4 235:7,10 242:20 242:21,22 243:1 243:17,22 247:2 247:22 250:18 251:11 252:4 257:18 258:3,18 258:21 259:10 261:3,4 262:8,10 266:14 267:7 269:3 271:17 272:4 273:14,17 274:12 277:13 278:10 279:16 280:13 282:21 287:17,20 288:9 288:15 <b>fairly</b> 218:6 230:2,6 244:10 245:7 246:5 253:14 267:1 <b>faithful</b> 275:11 <b>faithfully</b> 210:20	<b>fall</b> 31:22 254:21 <b>familiar</b> 67:21 105:5 110:1 200:1 201:19 257:4 <b>Fannie</b> 231:13 233:21 245:4 <b>far</b> 30:17 40:2 87:14 140:19 150:19 179:9 199:12 218:21 270:22 288:3 <b>farm</b> 63:9 <b>FAS</b> 213:20 <b>FASAC</b> 143:11 <b>FASB</b> 62:21 83:22 146:13 147:11 150:20 198:17,21 199:1 222:6 276:21 <b>FASB's</b> 143:10 199:1,2 <b>fascinated</b> 133:18 <b>fashion</b> 165:14 191:11 <b>fast</b> 170:9 186:5 <b>faster</b> 170:9,13 <b>fault</b> 148:14 <b>favor</b> 72:8 150:7 259:12 <b>favorite</b> 69:22 <b>fear</b> 146:21 192:22 214:20 <b>fearful</b> 216:1 <b>features</b> 153:19 <b>February</b> 95:13 <b>fed</b> 107:15 <b>Federal</b> 4:4 <b>feedback</b> 119:13,16 174:5,20 <b>feeds</b> 119:13 120:2 <b>feel</b> 10:18 85:21 116:15 168:4 248:13 <b>feeling</b> 146:22 <b>fees</b> 213:5 <b>fellow</b> 93:4 <b>felt</b> 112:14 149:17	<b>Ferguson</b> 1:13 40:10,11 41:19 <b>fewer</b> 61:7 196:22 <b>FHI</b> 1:9 <b>field</b> 88:15 103:10 137:3 215:13,19 <b>fifth</b> 204:21 <b>fighting</b> 158:3 <b>fighths</b> 146:10 <b>figure</b> 121:21 151:7 217:1 225:20 226:15 234:9 <b>figures</b> 151:1 <b>filers</b> 123:19 <b>files</b> 55:2 <b>filing</b> 281:2,8 <b>filter</b> 137:4 <b>filters</b> 168:9,14 <b>final</b> 54:4 76:21 96:20 139:18 208:9 280:2 <b>finally</b> 65:18 93:19 96:5 98:12 131:9 131:13 132:3 135:14 237:5 <b>finance</b> 117:16 124:11 139:1,10 <b>financial</b> 1:19 2:11 4:5,7,18 5:5,8 7:1 7:5 9:18 17:11,14 18:2,3,6,18 22:20 23:6,21 25:3 27:14 28:11 42:4 42:7,13,20 43:14 49:8 52:19,22 53:20 54:13 55:14 55:21 56:14,21 57:1 58:7,21 60:1 63:22 64:2,4,5,6 64:21 66:2 68:5 68:11 69:8 70:1,4 70:6 73:21 75:9 78:16 85:7,10 88:17 89:2,3 91:12 92:19 94:7 94:14 95:17 98:5 98:7,7,21 99:9,12	100:1 103:11,16 109:16 111:7 112:1 114:1,3,6,7 117:20 124:1 128:15 134:6 135:7 139:3,14,14 142:18 143:1,8,19 143:20 146:4,6,14 146:20 147:1,5,19 151:21 153:14 155:11 156:19,22 160:13 181:20,21 190:4,8,14,16 197:11 198:5,14 200:1,2 202:13,17 203:18 204:3 205:8 206:9 210:19 211:2,7,8 213:4,16 217:2 218:5,16 222:17 223:14 225:7 228:14 231:11,15 231:16 233:13 237:11,19 239:7 256:4 257:13 268:10 269:6,9,10 270:9 274:21 275:9,15 276:1 281:14 282:22 285:15 <b>financials</b> 274:8,15 <b>find</b> 43:2 49:14 93:22 113:13 137:12 172:19 173:20 176:13 193:17 226:9 244:8 261:3 283:11 284:17 <b>finding</b> 35:15 39:11 44:16 71:16 123:16 277:18 <b>findings</b> 6:3 21:1,7 21:12 22:8 23:2,9 23:10 36:10,21,21 40:13,16 43:1,8 43:15 44:11,13 47:17,22 48:20
---	--	--	---	---

49:11 50:21 53:19 57:21 71:15 85:10 102:7,11 126:10 126:17,18 131:13 <b>finds</b> 115:19,22 <b>fine</b> 34:7 <b>finesse</b> 217:1 <b>fingers</b> 148:3,4 <b>finished</b> 34:6 213:17 <b>Finnegan</b> 4:11 7:2 198:12 199:6 210:4,8,16 <b>FINRA</b> 162:8 173:10 <b>fire</b> 147:2 <b>firm</b> 31:7 37:11 39:8 51:10 83:3,4 130:20 139:5,6 222:7 238:21 250:20 257:6,10 263:10,11 271:11 279:17 282:6,8 283:5,6,13 <b>firm's</b> 36:18 38:3 140:4 155:7 <b>firms</b> 21:16 22:2 23:12 37:7 40:8 43:13 44:6,10 47:11,21 48:7 54:2 55:4 65:7 67:1,4,10,12 83:2 83:3 89:8 90:10 103:3 154:2 184:11 197:13 229:15,18 238:10 243:3,5,17 263:22 270:7 272:2 282:4 282:5 283:4 <b>first</b> 15:1 16:17 19:6 20:22 21:6 23:20 25:4 32:17 45:9 52:3 54:20 56:5 59:4,9 64:18 65:3,13 73:5 92:15 97:10 99:3 100:7 104:21	105:1,2 106:11 112:6,15 113:2 119:8 120:13 121:8 123:7 129:5 130:7 133:15 138:11 142:13 143:21 144:21 146:18 149:5 150:12 172:19,19 192:10 200:5 202:7 207:11 211:12 220:9 266:8 273:11 277:5,17 284:11 285:20 289:21 290:3 <b>first-line</b> 137:4 <b>firstly</b> 152:16 <b>fit</b> 67:17 125:7 215:19 <b>five</b> 74:8 109:11 132:17 150:12 199:19 204:13 240:19 243:19 244:5 246:4 254:8 <b>fix</b> 72:3 76:6 <b>fixed</b> 143:4 161:17 171:21 172:8,10 180:3 189:7 <b>fixes</b> 105:18 <b>flatline</b> 157:5 <b>flaw</b> 36:17 <b>flaws</b> 58:3 61:4 <b>Fletcher</b> 17:15 <b>flexibility</b> 122:21 <b>flexible</b> 110:19 <b>floor</b> 1:10 167:16 <b>Florida</b> 4:13 104:7 <b>flotilla</b> 278:6 <b>flow</b> 144:13 226:14 227:7 <b>flows</b> 31:18 54:19 78:3 87:20 91:14 226:15 234:6 <b>fly</b> 147:21 <b>focus</b> 9:21 15:10 17:10 18:2 23:5	25:12 26:2 30:5 30:14,20 36:1 49:9,16 50:2,3 90:3 120:12,17 128:22 129:9,12 130:1 138:2 143:18 220:16 241:3 250:20 257:16 258:7,10 259:16 <b>focused</b> 9:13 24:10 28:15,18 31:21 32:16 47:7 85:17 104:10 129:5 195:9 260:5,6 <b>focuses</b> 104:16 120:13 142:5 257:11 <b>focusing</b> 25:2 30:10 44:20 116:8,9 135:12 287:7 <b>folder</b> 10:3 <b>folders</b> 10:6 63:5 <b>folks</b> 82:9 197:12 269:21 <b>follow</b> 35:6 45:15 126:18 129:20,21 <b>follow-on</b> 179:18 184:16 <b>follow-up</b> 266:7 271:10 <b>followed</b> 219:4 <b>following</b> 38:4 94:2 121:2 <b>following-up</b> 280:17 <b>follows</b> 212:13 <b>footnote</b> 53:6 96:5 116:21 273:6 <b>footnotes</b> 218:10 <b>force</b> 12:15 17:15 94:8 139:4 147:12 157:8 166:3 180:1 <b>forecast</b> 207:1 <b>forecasting-type</b> 239:11 <b>forecasts</b> 87:3	<b>foreign</b> 281:15 <b>forest</b> 278:22 <b>forever</b> 36:22 214:5 <b>forget</b> 83:21 <b>form</b> 14:15 98:10 122:9 129:15 144:15 156:10 234:11 285:8 <b>formal</b> 208:15,17 <b>former</b> 50:19 62:21 66:12 83:21,22 96:8 100:1 198:14 211:15 <b>forming</b> 60:3 <b>forms</b> 260:16 275:7 275:8 <b>forth</b> 14:16 27:19 163:6 166:15 179:6 185:19 254:3 288:18 290:2 <b>forthcoming</b> 110:16 267:20 <b>fortunate</b> 222:8 <b>fortunately</b> 58:16 <b>Forum</b> 21:9 41:18 <b>forward</b> 9:1 16:11 28:12 29:19 42:11 48:9,10 50:1 65:20 83:20 130:4 142:11 152:10 157:8 160:14 171:18 206:11 221:11 222:21 223:6 238:15 265:19 266:1,4 280:10 <b>forward-looking</b> 69:3 <b>forwarded</b> 237:17 <b>found</b> 24:9 25:1 30:2 43:4 62:11 71:1 129:11 148:20 157:11 184:8 186:16 236:15	<b>foundation</b> 142:18 257:20 <b>foundational</b> 60:4 62:2 <b>founding</b> 21:19 <b>four</b> 67:1 112:13 113:5 129:4 133:14 139:4 143:8 146:18 238:6 <b>fourth</b> 43:18 203:9 <b>frame</b> 137:18 <b>framework</b> 100:18 105:8,8 197:5 205:9 218:17 <b>frameworks</b> 7:1 198:5 <b>framing</b> 137:19 <b>frankly</b> 86:20 87:5 264:8 267:12 <b>FRANZEL</b> 1:14 <b>fraud</b> 19:1 59:10 104:19 136:19 <b>fraught</b> 65:5 <b>FRC</b> 271:1 <b>Freddie</b> 245:4 <b>free</b> 208:20 <b>freedom</b> 97:12 <b>French</b> 146:10 <b>frequency</b> 23:8 25:22 285:3 <b>frequently</b> 23:3 30:4,9 43:6 127:5 127:6 249:3,9 282:20 <b>front</b> 10:3,6 51:9,9 163:17 232:9 <b>frozen</b> 147:4 <b>FSB</b> 42:18 <b>FSB's</b> 42:10 <b>FTEs</b> 250:19 <b>fulfill</b> 230:20 231:7 <b>full</b> 83:14 150:3,5 190:18 257:10 287:4 <b>fully</b> 48:21 90:5 96:11 157:12
--	--	--	---	--

285:17	202:21 240:3	194:5,10 217:10	243:11 244:1	224:16 226:10
<b>function</b> 269:13	<b>gaps</b> 190:21	234:21 239:18	248:1 249:5,18	229:6,14,17
<b>functional</b> 220:22	<b>Garrison</b> 3:10	251:9	266:1 273:7 274:7	230:20 231:7
<b>functions</b> 233:12	<b>gather</b> 52:18	<b>given</b> 19:19 48:2	282:6 283:10	232:16,18 233:6
<b>fund</b> 195:14	265:14	74:21 88:20	287:9	233:20 234:12,13
<b>fund's</b> 143:9	<b>gathering</b> 29:2	123:19 124:3	<b>goal</b> 65:4	235:3 237:4 239:4
<b>fundamental</b> 37:20	<b>Gaynor</b> 4:12 6:12	158:1 159:19	<b>goals</b> 129:10	250:15 255:12
55:15 59:16,19	104:6,21 137:7	161:19 172:9	<b>goes</b> 26:22 40:16	258:6 265:19
63:13,15 77:10	<b>geared</b> 161:21	180:2,4 188:8	48:9 51:19 83:16	266:4 268:2,3
78:6 81:7,10	<b>gee</b> 224:6 230:19	190:5 197:9	88:19 89:18	272:16 275:12
136:1 198:2 214:8	<b>general</b> 2:15 3:12	217:18 255:12	100:20 119:3,11	276:10 277:22,22
263:20	3:13 4:3,21 22:21	284:8 286:10	136:4,5 137:4	278:13,15,20
<b>fundamentally</b>	26:1,3,9,10,11,16	288:8 289:19	138:18,18 140:1,4	279:4 280:10,11
34:12	26:18 57:5 92:22	<b>gives</b> 223:16	159:7 188:4 211:6	283:10 284:7
<b>fundamentals</b> 51:4	138:18 146:22	<b>giving</b> 60:21 111:3	224:20 278:8	289:12,17
212:4	156:19 197:17	221:10	<b>going</b> 8:3 28:11	<b>good</b> 8:4 19:11 24:5
<b>funds</b> 204:4,5	<b>generally</b> 22:18	<b>glad</b> 48:4 254:4,12	29:6,12 37:17	24:16 26:17 27:13
276:6	90:18 95:14	256:7	38:6 39:20 40:15	28:11 30:8 31:12
<b>further</b> 7:19 11:6	122:13 248:13,15	<b>global</b> 1:21 2:12,14	42:11 46:3,11	32:7 35:11 37:16
11:16 14:1 15:4	249:14 261:18	6:3 20:22 21:7,21	47:7 50:1 53:8,13	38:9 39:4 44:19
35:10,19 80:5	262:6 268:14	22:7 56:18	53:18 58:5 59:6	45:12 47:1,9
126:12 284:16	<b>generate</b> 122:14	<b>globally</b> 41:15 43:3	61:11 66:12 73:21	53:13 54:17 57:11
290:17	<b>generic</b> 69:14	45:14 67:13	76:6 92:2 103:22	66:1 74:13 78:5
<b>Furthermore</b> 83:1	<b>gentleman</b> 145:5	103:14 161:2	106:3,4,4 112:6,6	85:12 86:4 92:7
<b>future</b> 20:8 31:17	<b>gentlemen</b> 200:18	<b>globe</b> 42:1,2	113:16,18,19	99:3 128:17
55:18 61:10 69:1	<b>geography</b> 207:15	<b>go</b> 20:3 38:19 44:12	114:22 115:2,5,10	133:22 136:21,21
69:2 81:12 83:20	<b>Georgia</b> 4:14	55:4 77:15 80:5	116:6,17,17	139:11 140:14,22
87:3,4,4 112:20	104:16	82:11 86:20 87:16	118:19 120:3,7,12	141:4 160:20
150:2 169:14	<b>getting</b> 28:19 33:1	87:21 90:17 102:4	140:7,8,9 141:10	178:3 199:13
206:22 238:12	44:14 50:18 76:3	107:19 111:2	141:12 143:15	216:15 220:1
274:14	111:21 116:17	112:3 113:11	144:6,13,15 147:6	223:12 227:2
<b>G</b>	120:22 139:8	116:12 118:13	149:3,7,9,10	228:22 231:19
<b>G</b> 3:9 8:1	140:12 152:18	149:5 150:19	155:14 158:12	234:17 235:3,3
<b>GAAP</b> 64:15 65:3	159:15 163:4	152:10 157:10	164:6,10 166:1	237:1 240:8 247:6
148:21 265:22	170:18 174:1,4	159:21 162:4	175:11 176:8	248:20 250:21
<b>gaining</b> 224:1	175:3,4,6 176:16	163:14 166:1	177:14,19 178:9	275:15 280:7
<b>gains</b> 93:17,19	186:20 187:13	167:18 168:12	178:19 179:1,7,17	284:2 288:5 289:4
110:14	195:20 203:16	169:8,8,9 171:15	183:3,6,21,22	290:18
<b>Gallagher</b> 2:5	214:22 248:9	172:14,16 173:17	186:10,12,14	<b>good-faith</b> 161:13
157:18 187:17,19	249:21 252:7	173:19 175:5	189:7,10 191:18	<b>goodwill</b> 23:6
<b>Gallagher's</b> 211:21	282:11	183:13 187:18	192:4,5,6,8	144:4,5,18 145:3
219:14	<b>Gin</b> 145:6	188:5,6,10 207:2	196:18 199:18	212:15,21 220:19
<b>game</b> 90:4 157:22	<b>give</b> 82:2 86:11	207:10 223:1,9	201:17 206:1	259:7
176:17 183:17	87:19 97:7 105:17	226:14 227:7,21	207:2,9 210:18,20	<b>Gordon's</b> 145:6
241:17	106:12 113:17	227:22 228:12	212:22 220:2	<b>gotten</b> 48:22
<b>gamut</b> 283:11	137:13 148:7,8,12	230:17 234:13	221:11 222:1	196:16 270:22
<b>gap</b> 132:18 201:21	190:2 193:1,1	236:17 242:15	223:8,9 224:8,11	<b>governance</b> 2:4,5



2:12 3:6 111:12 134:20 163:2 165:16 174:1 231:19 234:18 279:7,22 280:8 <b>government</b> 186:7 <b>government's</b> 186:17 <b>governs</b> 126:2 <b>GPPC</b> 44:7 <b>grade</b> 60:16,16 61:3,15 62:15 245:2 <b>grades</b> 60:20 61:8 61:12 <b>gradually</b> 63:21 <b>graduate</b> 138:9 139:13 <b>Graham</b> 2:1 <b>granularity</b> 44:12 <b>graph</b> 167:1 192:2 <b>great</b> 20:10 22:10 22:17 29:13 39:5 40:12 55:10 56:5 56:7 57:15,18,19 66:13 82:15 88:18 92:1 132:14 141:6 141:21 158:9 159:2 174:20 179:15 181:20 187:8,16 189:16 198:1 208:18 223:16 230:8 240:4,6,6 241:6 287:4 289:7 290:18 <b>greater</b> 29:16 109:9,11 115:21 127:17,18 128:10 132:22 154:13 263:16 <b>greatly</b> 8:20 203:2 222:21 277:3 <b>Greene</b> 4:4 51:16 54:3,5,8 <b>Greg</b> 5:17 17:15 223:4	<b>GREGORY</b> 3:4 <b>grew</b> 63:9 <b>grey</b> 270:14 <b>Griffin</b> 115:12 <b>Griffith</b> 118:11 <b>grounded</b> 256:17 260:12,18 <b>group</b> 1:3,9,11,16 5:6 8:9,21 10:21 21:21 22:3 32:13 44:7,8 55:22 56:21 75:19 76:10 95:8 142:22 143:11 164:8 178:11 198:14 232:7 238:3,5 <b>groups</b> 232:1 237:11 <b>Grove</b> 3:11 5:6 56:16 <b>growing</b> 146:1 <b>growth</b> 31:17 87:4 284:15 <b>guaranteed</b> 245:6 <b>guess</b> 41:5,11 52:2 52:10 65:8 78:20 79:10 83:19 231:3 238:1 255:8 271:11 282:19 <b>guessed</b> 214:21 <b>guests</b> 11:11 <b>guidance</b> 12:11 29:16 33:4,17 37:15,21 126:8,8 130:11 131:2,7,10 131:11,15,19 155:3 156:4 180:21 200:3 202:2 206:8 214:12 219:4 235:18,19,20 236:13 240:20,22 241:1,2 254:15 260:8 288:1,13 <b>guided</b> 273:22 <b>guidelines</b> 289:22 <b>Guido</b> 2:6 34:5	36:6 86:5 89:16 91:21 238:19 <b>Guy</b> 2:12 97:3 99:1 216:16 <b>guys</b> 29:8 83:5 139:7 <hr/> <b>H</b> <hr/> <b>H</b> 1:13 2:7,7,19 4:15 7:10 <b>half</b> 26:10 97:17 147:19 167:19 <b>half-full</b> 97:18 <b>Hammersley</b> 4:13 6:13 104:14 120:6 120:11 136:7 <b>hand</b> 88:2 259:12 283:9 <b>hand-holding</b> 37:17 <b>hand-in-hand</b> 89:18 <b>handful</b> 243:18 <b>hands</b> 271:8 272:14 <b>HANSON</b> 1:14 <b>happen</b> 71:15 87:22 107:4 186:10 206:22 <b>happened</b> 25:5 57:15 115:1 144:13 170:5 225:8 239:10 278:1 <b>happening</b> 127:6 139:22 247:8 270:20 <b>happens</b> 129:8 171:16 191:10 248:17 249:10 250:7,12 <b>happiness</b> 145:9 <b>happy</b> 20:17 39:2 57:17 61:19 78:11 208:16 <b>harbors</b> 227:6 <b>hard</b> 62:5 75:18 78:2 156:1 171:22 185:10,20 186:4	239:19 248:4,6 249:4 <b>hard-to-value</b> 23:6 23:21 25:3 <b>harder</b> 81:11 <b>harm</b> 235:2,4 <b>Harriman</b> 2:17 <b>Harris</b> 1:15 272:10 272:11 <b>Harrison</b> 4:4 51:16 54:3 55:19 <b>Harvest</b> 196:1 <b>hat</b> 231:9 <b>head</b> 1:21 2:12,14 5:5 254:4 <b>headed</b> 286:13 <b>heading</b> 150:3 259:21 <b>heads</b> 145:20 <b>healthy</b> 27:5 <b>hear</b> 16:5 37:1 48:5 66:8 71:11 78:11 78:13,14 90:20 92:5 101:8 105:22 133:9 180:9 181:1 199:16 202:14 209:6 219:8,11 221:22 254:12 256:12 277:1 <b>heard</b> 35:14 36:4 45:8,16 117:11 120:16 121:16 198:6 201:1,13 204:22 217:19,20 218:21 235:22 237:2 259:15,22 262:8 264:1,12,20 273:3 277:17 286:22 287:11,12 287:22 288:12 <b>hearing</b> 12:1 72:3 100:7 142:11 154:2 176:7 192:15 259:15 281:3 282:2 289:6 <b>heart</b> 100:5 148:1 <b>heavy</b> 139:8 230:4	<b>hedged</b> 213:9 <b>hedging</b> 13:19 213:9 214:3 <b>height</b> 92:19 <b>heightened</b> 92:14 205:3 <b>heightens</b> 94:17 <b>HEIMLICH</b> 4:5 <b>held</b> 154:1 244:21 <b>Helen</b> 5:3,15 6:4 21:12,14 22:9 30:3,6,22 34:8 35:15 36:7 39:5 45:3,10,17 48:4 49:7 50:16 53:17 53:17 54:8 80:7 240:13 241:19 <b>help</b> 10:8 33:4,18 35:13 39:15 72:11 102:19 105:19 155:10,21 156:4 156:17 162:20 164:8 197:14 202:5 216:13 220:5 229:5 247:16 251:3 283:10 <b>helped</b> 155:16,17 <b>helpful</b> 72:16 73:9 156:16 160:17 175:9 199:16 227:19 236:15 242:17 253:15 257:5 260:6 262:6 264:22 265:5 287:22 <b>helping</b> 163:11 <b>helps</b> 33:19 44:3 <b>Herz</b> 2:7,7 4:15 7:10 222:2 223:3 269:8 273:8 276:5 <b>hey</b> 71:18 178:18 <b>hidden</b> 255:10 <b>hiding</b> 190:20 <b>hierarchy</b> 223:21 <b>high</b> 23:8 25:5 45:22 46:22 50:2
---	--	--	--	---

55:14 60:20 92:4 94:20 112:17,19 165:8 178:3 205:17 214:13 244:22 247:10 <b>high-level</b> 13:6 26:16 <b>high-qualified</b> 55:11 <b>high-quality</b> 46:21 55:11 <b>high-risk</b> 90:11 <b>higher</b> 168:21 214:14 <b>higher-quality</b> 35:2 <b>highest</b> 43:8,15,17 43:18 57:21 109:12 114:11,13 <b>highlight</b> 23:16,20 53:7 156:2 190:10 192:11 193:9 195:10 207:4 249:20 250:15 <b>highlighted</b> 250:21 <b>highly</b> 116:4 147:17 148:18 176:8 262:15 269:11 <b>highly-challenging</b> 112:11 <b>highly-material</b> 135:17 <b>highly-qualified</b> 62:4 <b>hinder</b> 60:9 <b>Hippocratic</b> 235:1 <b>hire</b> 86:16 <b>hired</b> 82:9 <b>HIRTH</b> 2:8 <b>historically</b> 178:1 <b>history</b> 17:1 208:13 223:10 <b>hit</b> 225:8 <b>hold</b> 10:19 17:20 156:20 161:14 172:12 234:8 <b>holding</b> 134:9	<b>Holdings</b> 2:2 <b>holds</b> 104:7 130:1 <b>holistic</b> 271:5 <b>home</b> 172:20 <b>homegrown</b> 145:13 145:16 <b>homework</b> 173:19 193:1 <b>homogenized</b> 284:21 <b>homogenous</b> 245:22 <b>HON</b> 1:18 <b>honed</b> 164:10 <b>honest</b> 205:10 210:17 280:18 <b>Hong</b> 151:13 <b>hope</b> 8:17 13:4 40:22 45:2 50:1 63:14 84:19 90:12 101:22 103:2 156:15 181:13 216:14 <b>hopeful</b> 95:15 105:16 <b>hopefully</b> 10:4 11:4 53:7 133:9 160:10 228:22 260:22 <b>host</b> 214:2 <b>hour</b> 147:19 167:18 286:10 <b>hours</b> 101:10 167:19 <b>how-tos</b> 227:6 <b>huge</b> 146:10 152:1 <b>hugely</b> 272:17,19 <b>human</b> 51:22 52:3 52:9 145:9 185:12 186:8 <b>humble</b> 145:8 290:2 <b>hundred</b> 165:5 <b>hundreds</b> 21:15 145:20 <b>hung</b> 67:21 <b>Hunt</b> 4:17 6:5 21:18 29:12 40:11	<b>hybrid</b> 214:2 <b>hypotheses</b> 154:18 <b>hypothetical</b> 86:21 86:22 150:13 151:20 224:7,18 <hr/> <b>I</b> <b>I=ll</b> 257:19 <b>I=m</b> 205:19 <b>IAASB</b> 16:19 17:2 19:13,20,22 20:12 <b>IAASB's</b> 16:20 <b>IAN</b> 4:3 <b>IAPN</b> 19:5 <b>IAS</b> 213:21 <b>IASB</b> 142:17 146:13 147:11 198:17 199:22 206:7 213:17 217:7 222:7 <b>IDC</b> 181:9 195:20 253:8 <b>idea</b> 28:8 106:3 133:17 153:10 157:7 176:16 <b>ideas</b> 237:16 239:18 <b>identification</b> 129:18 131:6 <b>identified</b> 11:3 18:17 19:1,10 94:19 96:1 103:13 121:3 126:19 <b>identifies</b> 36:2 <b>identify</b> 15:3 28:15 44:3 61:12 119:1 130:12 153:11 206:16 262:17 288:6 <b>identifying</b> 14:6,9 67:6 124:16 136:22 <b>IFIAR</b> 21:10,20 32:13 34:11 40:10 40:11 41:17,18,22 42:7,19 44:8 71:13 <b>IFIAR's</b> 21:21 22:2	22:6 <b>ifiar.org</b> 43:2 <b>IFRS</b> 57:2 156:6 <b>IFRS-9</b> 199:22 200:4 206:10,18 207:3 210:14 211:1,6 <b>ignorance</b> 181:14 <b>ignore</b> 225:1 228:2 <b>Illinois</b> 84:1 138:14 <b>illiquid</b> 147:14 172:13 173:1 248:4,6 <b>illiquidity</b> 196:15 197:2,5 <b>illuminating</b> 199:11 <b>illustrates</b> 82:12 <b>Imagine</b> 60:11,15 <b>immaterial</b> 135:19 <b>impact</b> 35:9 37:11 54:11 93:1 102:8 192:21 227:17 262:13 <b>impacts</b> 85:10 236:21 <b>impaired</b> 71:18 151:3 <b>impairment</b> 30:8 31:18 70:4,5,6 78:5 86:14 91:11 91:16 144:15,16 190:21,22 200:3 206:9,17 208:4 209:4 212:21 213:2,16 220:19 220:20,20,21 259:3,7 269:16,17 <b>impairments</b> 43:17 109:14 114:11,12 124:3 <b>impede</b> 131:5 <b>impedes</b> 130:17,18 <b>implementation</b> 1:22 65:21 199:3 207:7 <b>implemented</b> 29:17	64:19 <b>implication</b> 116:6,7 118:6,19 119:18 <b>implications</b> 19:2 118:7 122:5 130:7 132:10 135:10 136:13 215:3 216:18,20 <b>implicitly</b> 130:22 <b>implode</b> 149:12 <b>implore</b> 206:2 <b>importance</b> 51:6,7 56:14 76:16 97:10 111:15 126:15 157:22 198:7 201:14 203:5 205:3 287:18 <b>important</b> 8:18 9:14,20 11:18 27:1,6 35:1 39:3 39:16 40:8,15 48:19 49:19 51:13 52:16 55:6,20 56:3,11 57:13 58:13 66:10 72:19 79:19 85:22 88:17 89:6 91:19 99:4 99:17 103:8,12,14 103:16 108:16 132:12 134:12,13 134:15 135:2,10 136:17 137:6 151:2 160:5 180:19,22 191:6 192:3 193:7 202:9 206:12 215:12 223:5 233:4,9 235:22 236:1 254:2 256:12 257:14 263:6 271:3 278:22 279:9 289:20 290:15 <b>importantly</b> 16:1 122:17 129:15 224:3 <b>imposed</b> 206:22
--	--	---	--	---

<b>imprecise</b> 107:10 111:3 116:1,3	18:19 21:12 75:4 95:3 116:21	143:18 197:10 217:5 258:11	161:8 175:20 176:4 190:11	174:19,21 175:7 176:17,18 177:5,6
<b>improve</b> 32:14 34:14 35:13 40:21	218:15 246:6 <b>included</b> 10:3	<b>incremental</b> 199:13 <b>incumbent</b> 208:2	192:12 193:8 205:8 262:16	177:10,12,15,20 177:21 178:2
46:3 48:8 67:5,7 95:18 103:2 121:1	27:10,11 28:10 41:13 75:1 125:13	<b>independence</b> 80:5 80:13 82:13,14	265:15 <b>industry's</b> 96:12	179:5,13,14 180:13,14 182:14
128:18 137:14 156:17 200:14	140:12 <b>includes</b> 15:14	83:10,11 84:7,7,8 84:10 104:12	<b>inexperienced</b> 118:15	182:19,22 183:4,5 183:7,19 184:1
242:9 <b>improved</b> 45:2	222:5 287:19 <b>including</b> 9:16	281:21 <b>independent</b> 15:17	<b>infancy</b> 137:9 <b>infinity</b> 73:14	185:8,15,17 186:20,21 188:20
101:3 129:17 216:14 218:9	11:20 12:22 14:12 15:15 17:4 92:12	21:9 27:20 41:18 64:5,13 65:1	<b>influence</b> 86:19 221:6 285:14	189:3,6 191:15 192:20 206:20
237:7 <b>improvement</b>	93:9 95:1 117:16 118:8 143:1	75:10,14,15 78:13 78:22 79:5,13,17	<b>influenced</b> 86:18 285:6	218:10 227:2 228:2 229:3,3
33:22 35:1,2 37:9 37:9 103:13 237:8	209:15 214:20 215:17 222:12	80:20,22 81:18 82:1,4,6,7,22 83:2	<b>influences</b> 262:12 262:17 263:3,5	237:20 239:18 242:6,10 244:2,6
241:22 242:1 <b>improvements</b>	239:17 266:14 <b>inclusion</b> 126:3	83:4,6,16,17 86:10 87:12,14	<b>influencing</b> 214:17 <b>inform</b> 11:6,15	244:21 245:16 247:11,12,15,19
15:20 23:9 25:6,7 38:1 95:2,3	<b>inclusive</b> 212:13 <b>income</b> 93:17 108:7	96:6 121:16,17 123:4 131:4	12:12 220:6 <b>information</b> 12:19	252:21 253:1,10 256:9 264:7 270:3
213:17 <b>improving</b> 34:18	128:8 148:9 149:21 161:17	140:13 158:4 209:2 261:10,12	26:20 27:17,21 29:2 31:4,12,16	270:4 273:14 274:2,3 275:16
40:14 96:2 103:15 128:21 135:22	171:21 172:8,10 180:3 189:7	261:17 270:9 <b>independently</b>	64:11 69:10 79:2 79:7,9 80:1,18,20	282:11 <b>informative</b> 8:18
202:8 211:7 223:1 240:1	<b>incomes</b> 143:4 <b>inconsistencies</b>	244:13 261:13,14 <b>indicate</b> 93:21	80:21 81:19 85:9 87:2,6 91:17	45:3 197:22 <b>informing</b> 13:2
<b>in-depth</b> 120:19 <b>in-house</b> 122:12	125:8 <b>inconsistent</b> 131:6	116:13 <b>indicated</b> 32:3	92:17 94:1,14 100:19 103:16	<b>infrastructure</b> 252:2
269:11 <b>in-process</b> 87:8	197:15 <b>incorporate</b> 131:12	41:21 45:21 86:1 114:16 180:15,20	117:4 125:11,12 125:15,18 129:13	<b>inherent</b> 25:15
<b>inability</b> 96:12 115:9	138:7 <b>incorporated</b> 68:17	255:6 264:6 265:7 <b>indicates</b> 42:12	129:13 132:2 133:20 151:17	50:11 123:10,13 153:19 217:14
<b>inaccurate</b> 141:11 <b>inactive</b> 181:21	73:20 74:18 126:11	63:1 <b>indicating</b> 44:22	153:22 154:4 161:21,22 162:3,5	230:10 278:18 288:2
225:17 226:12 <b>inappropriate</b>	<b>incorporates</b> 81:11 <b>incorporating</b>	261:20 <b>individual</b> 125:4	162:10,11,21 163:4,8,11,13,14	<b>inherently</b> 25:11
62:12 107:4 154:5 197:15,16	163:21 185:9 <b>incorrect</b> 197:15	136:4 164:20 165:6,8 172:2	163:16,19 164:12 165:3,10,17,19,21	88:9 224:11 278:7 <b>inhibited</b> 96:12
<b>inappropriately</b> 28:7	<b>incorrectly</b> 256:2 <b>increase</b> 61:22	<b>individually</b> 165:9 <b>individuals</b> 55:12	166:11,12,16,17 166:19,20 167:2,2	252:2 <b>initial</b> 269:12
<b>inbound</b> 186:21 <b>inboxes</b> 163:3	129:16 155:20 214:19 241:10	63:2 <b>industries</b> 257:13	167:8 168:15 169:21,22 170:1	<b>initially</b> 64:2 <b>initiative</b> 37:14
<b>incentive</b> 97:17 <b>incentives</b> 97:11	<b>increased</b> 37:15 129:2,19 184:6	<b>industry</b> 4:5 18:8 18:13 68:3 96:10	170:14,15,18,20 170:21 171:2,6,11	286:5 <b>initiatives</b> 285:9
99:4,14 <b>incentivized</b> 97:14	237:14 <b>increases</b> 115:20	96:15 122:10 136:5 140:6	171:16,17 173:4,6 173:7,20 174:2,3	<b>innocent</b> 139:5 <b>input</b> 12:4 32:12
<b>include</b> 9:8 15:8	<b>increasing</b> 68:19	147:12 156:21	174:9,12,13,13,18	103:21 113:1 119:8 127:14 132:13 155:5 198:16 248:16

274:1 289:10 290:10 <b>inputs</b> 69:11 107:8 107:9,15,17 109:19 110:9,10 111:2,3 113:2,3 115:10 116:4,9,12 116:18 154:9,21 155:1 156:15 161:22 162:4 163:2 179:13 185:2 194:13,16 223:22 224:7 249:6 261:15 265:16 276:14,15 <b>inquiry</b> 42:18 <b>inside</b> 128:2 249:10 <b>insight</b> 48:6 90:15 90:16 91:1 175:18 <b>insightful</b> 197:20 199:11 287:5 <b>insights</b> 95:4 <b>insist</b> 206:3 <b>inspecting</b> 32:5 <b>inspection</b> 6:3 20:22 21:7,12 22:7 23:8 34:10 34:14,19 38:4,16 39:3,6 40:13,19 43:1,7 44:11 45:13 49:11 57:18 240:12,13 241:19 241:20 285:7 <b>inspections</b> 5:4,16 21:5,11,13,15 22:1,11,13 23:4,4 29:15 30:5,17 32:6 53:18 54:9 119:20 277:18 <b>inspectors</b> 41:15 <b>instance</b> 182:21 <b>instances</b> 24:10 109:1 165:7 184:8 <b>instantly</b> 149:21 <b>Institute</b> 5:6 56:22 57:1 66:20 68:18 78:12 94:4 142:15	197:8,9 198:15 <b>institution</b> 204:2 233:14 268:10 <b>institutional</b> 2:16 4:21 57:6 92:9,20 95:6 96:3 168:10 <b>institutionally-si...</b> 161:15 <b>institutions</b> 2:11 4:19 18:2,6,12,18 42:20 43:15 64:4 64:5 94:7 98:8 151:21 156:22 196:20 211:9 213:4 222:17 231:11,17 258:5 269:9 <b>instrument</b> 147:20 153:14 155:11 213:9,16 282:22 <b>instruments</b> 13:19 17:11,14 23:6,21 25:3 36:13 42:13 53:21 64:3,7 70:5 70:6 98:4 109:16 114:2,3,7,8 124:2 139:3 146:4,6,14 181:21 200:2 203:18 204:3,8 207:15 225:10 226:5,17 248:4 269:10 <b>insufficient</b> 43:19 285:6 <b>insurance</b> 4:4 18:13 67:19,20 68:3 70:8 73:15 73:16 91:2 204:4 212:22 213:17 269:15 271:4 <b>intangible</b> 47:3 283:1 <b>intangibles</b> 30:8 70:6 86:12 144:3 145:16 146:1 212:14,21 226:1 268:11	<b>integrate</b> 72:11 251:8 <b>integrated</b> 72:15 195:21 <b>integration</b> 72:8 <b>integrity</b> 101:15 <b>intelligence</b> 175:13 <b>intend</b> 156:20 <b>intention</b> 27:19 60:17 <b>intentional</b> 111:19 135:11 <b>intentioned</b> 62:5 <b>intentions</b> 81:12 <b>interact</b> 126:10 169:1 <b>interaction</b> 169:18 170:2 <b>Interactive</b> 4:10 6:18 142:21,22 160:22 162:18 167:11,17 169:1 170:7,11 <b>interest</b> 19:19 20:2 29:13 41:11 42:5 42:10 91:8 177:2 178:6,10,16 186:6 187:16 198:1 215:15 226:16 227:9 287:9 289:7 <b>interested</b> 19:14 46:14 50:7 68:14 71:22 175:14 176:2 181:8 208:21 254:5 278:16 288:20 <b>interesting</b> 25:2 46:5 57:20 67:10 96:6 112:22 113:13 157:12 190:7 221:19 228:20 274:7 <b>Interestingly</b> 43:14 116:19 202:14 <b>interests</b> 95:17 <b>internal</b> 44:11 54:13 79:14,21	126:1,5 131:11 190:9 192:10 193:8 195:1,7 210:2 231:20 232:3,7 241:5 243:21 256:4 263:4,5,12,16 266:15 283:3,7 <b>internally</b> 282:17 <b>international</b> 2:15 3:14 4:6,11 5:3,9 6:15 7:3 17:12 21:9 22:6 32:4 41:18 142:14,17 143:16,22 144:18 144:22 145:18 146:5 152:15,17 154:19 198:13 <b>internationally</b> 151:19 152:20 <b>interpretation</b> 116:10 231:3 <b>interpretations</b> 57:3 <b>interpreting</b> 185:14 <b>intertwined</b> 283:21 <b>intervals</b> 28:22 <b>intervene</b> 227:4 <b>intervention</b> 52:11 185:12 <b>interviewed</b> 126:4 148:2 <b>interviewer</b> 148:2 148:15 <b>interviewing</b> 118:12 <b>interviews</b> 120:19 121:3 246:6 <b>intimate</b> 10:9 <b>intrigued</b> 141:5 <b>intrinsic</b> 183:21 234:5 <b>introduce</b> 16:17 135:12 275:10 <b>introduced</b> 144:21 206:12 235:8	<b>introduces</b> 212:1 <b>introduction</b> 200:21 <b>Introductions</b> 6:2 <b>intuition</b> 277:16 <b>invaluable</b> 13:2 <b>invariably</b> 121:18 <b>inventories</b> 162:13 <b>inventory</b> 59:13 71:16 212:17,20 220:20 <b>invest</b> 251:6,6 <b>invested</b> 162:19 <b>investee</b> 213:11 <b>investigation</b> 59:10 <b>investigations</b> 38:19 <b>investment</b> 2:20 3:7 5:1 6:20 18:12 69:1 75:12 134:8 143:7,9 190:4 196:21 204:1,14,19 209:12 245:2 257:12 258:15 268:15 286:2 <b>investments</b> 2:13 13:20 43:18 196:1 209:16,18 213:3 252:4,5 258:16,20 265:4 268:14,16 268:21 <b>investor</b> 6:8 56:9 59:1 61:17 72:18 75:19,19 95:8,14 97:5 98:2 102:6 103:9,14,15 134:5 134:11 238:11 272:20 276:15 285:4 <b>investors</b> 2:16 4:21 56:12 57:6 58:9 58:11,12,15,17,22 60:9 61:21 62:13 62:13 66:13 69:6 69:16,18 70:9,20 71:5,11,22 75:21
---	---	---	--	---

76:10 80:16 90:21 91:6,13 92:4,9,16 92:20 93:1,8,22 94:13,20 95:2,7 96:4,11 97:12 100:19 103:6,12 104:10 128:10 132:2 134:6 159:1 217:5,14 228:18 235:21 271:8 272:14 274:1 275:17 <b>invitation</b> 57:12 <b>invited</b> 8:14 <b>inviting</b> 96:21 132:6 <b>invoke</b> 69:16 <b>involuntary</b> 189:9 <b>involve</b> 22:17 207:13 <b>involved</b> 40:11 43:11 129:16 159:14 204:2 209:22 225:18 226:10 228:16 274:13 289:5 <b>involvement</b> 38:18 47:2 83:14 <b>involving</b> 269:10 281:14 <b>ironic</b> 91:15 <b>irony</b> 148:17 <b>irrelevant</b> 274:3 <b>ISA</b> 17:2,16 18:16 19:5 32:4 33:8 49:4 180:20 237:1 <b>ISAs</b> 17:7 19:5 <b>ISB</b> 283:18 <b>issuance</b> 94:3 <b>issue</b> 48:14 51:20 53:20 59:13 138:15 148:18 164:21 201:12 205:2 216:10 227:20 234:22 235:12 237:13 238:14 245:4	256:6 257:2 276:20,20 281:5 285:10 289:22 <b>issued</b> 9:15 12:10 49:4 93:2 94:15 <b>issuer</b> 24:4,15,19 24:22 26:20 55:6 55:7,10,10 64:16 81:20 165:4 184:13 202:12 207:18 257:7 265:8 283:12 285:20 <b>issuer's</b> 281:2 <b>issuers</b> 22:20 24:7 224:4 229:18,19 257:19 258:1 259:2 261:18 265:1,21 282:3,20 283:2,3 <b>issues</b> 8:22 10:13 11:14 16:10 18:8 18:10,13,15,16,19 20:13 34:13 39:14 45:13 73:6 84:20 89:22 97:12 98:15 98:19 121:3 126:19 127:2 133:5 134:20 199:3,4 219:21 243:8 256:3 259:3 259:7 260:4 262:9 265:20 267:21 269:4 284:21 <b>issuing</b> 184:18 <b>it'd</b> 185:10 <b>it'll</b> 278:14 <b>it=s</b> 153:17 178:2 <b>item</b> 128:16 213:9 <b>items</b> 10:3 45:17 68:17 69:17 98:6 111:7 126:6 <b>iteration</b> 64:18 <b>iterative</b> 63:21 <hr/> <b>J</b> <b>J</b> 2:5 3:7,10 5:5 6:9 <b>Jackie</b> 6:13 104:14	104:22 113:15 115:1 118:11 120:3,8 132:7 135:15 137:7,18 138:12,13 139:21 <b>Jackie's</b> 104:16 118:19 <b>Jacqueline</b> 4:13 201:14 <b>James</b> 1:13 2:2 238:22 <b>Jason</b> 256:14 <b>JAY</b> 1:14 <b>Jean</b> 2:11 4:18 7:12 222:15,15,17 252:15 253:20 256:20 266:9 272:2,11 283:9 <b>Jean's</b> 229:17 250:15 282:2 <b>JEANETTE</b> 1:14 <b>Jeff</b> 57:4 86:6,7 92:6 97:1 100:16 152:21 153:1,5 157:21 210:12 266:8 282:14 <b>Jeff's</b> 57:6 98:12 271:10 <b>Jeffrey</b> 2:15 4:21 6:10 <b>Jennie</b> 245:4 <b>Jennifer</b> 2:20 100:11 102:3 103:19 <b>Jennings</b> 110:17 <b>Jeremy</b> 4:20 6:6 21:22,22 29:8,12 29:20,22 35:15 45:10,17 50:16 115:12 <b>Jim</b> 4:3 181:13 184:16 238:20 280:15 <b>job</b> 31:13 45:11,12 54:17,22 57:19 82:15 92:1 152:16 163:11 204:13	210:14,16 230:8 252:20 <b>John</b> 2:4 3:15 <b>Johnny</b> 145:7,11 <b>Johnson</b> 2:10 41:8 48:15 50:15 84:21 218:19 <b>joining</b> 21:17 104:14 198:19 290:8 <b>joint</b> 94:4,6,10 147:15 <b>joke</b> 69:21 <b>jotted</b> 36:11 <b>journals</b> 110:17 <b>journey</b> 241:5 <b>Joy</b> 2:11 4:18 7:12 222:15 256:21 268:5 272:5 <b>Jr</b> 1:21 2:3,8 <b>Jubb</b> 2:12 97:4 216:16,17 <b>Jubb's</b> 97:3 <b>judge</b> 81:18 <b>judgment</b> 22:16 42:15 43:11 46:12 51:21 58:21,22 59:2 60:4 64:21 90:3 100:6 119:11 130:9 155:4 185:10,11,20 186:2,14 187:5 201:4 205:14 208:8 235:5 245:14 257:20 278:11 279:11 280:5,6,12 <b>judgmental</b> 59:6 60:1 <b>judgments</b> 43:20 60:3,8 61:21 62:4 64:22 89:11,12 95:5,11 99:15 104:8 137:5 205:7 207:6 208:2 213:22 277:9,19 <b>July</b> 93:2	<b>jump</b> 117:3 <b>jurisdictions</b> 281:15 <b>Justin</b> 4:20 6:6 21:22 30:2 <hr/> <b>K</b> <b>keen</b> 42:5 <b>keep</b> 41:10 42:12 58:13 63:8 72:3 194:2 280:18 <b>keeping</b> 34:2 114:7 <b>keeps</b> 279:1 <b>Keith</b> 104:7 <b>Kennesaw</b> 3:6 <b>kept</b> 220:12 <b>Kevin</b> 3:8 34:4,4 35:12 81:21 215:9 216:15 218:20 219:3 236:12 277:20 <b>Kevin's</b> 158:5 219:15 <b>key</b> 13:6 16:9,10 31:2 32:21 33:5 45:12 49:13 50:21 64:8 85:6,7,20 98:16 138:15 174:6 231:15 232:10 233:15 255:21 260:10 286:13 <b>kick</b> 143:12 <b>kicks</b> 186:7 <b>kind</b> 31:21 32:16 32:17 36:6 46:15 52:11 53:5 100:16 112:3 119:3 136:2 140:18 158:12 168:9 187:6 223:12 224:15 227:5,6,8,10,13 227:20 228:12 229:12,12 231:6 231:14 232:15,18 233:5 234:8,8 236:10,11,17,18 239:3,4,18 255:10
---	--	---	--	---

269:18,19 270:13 270:14,18 271:5,5 272:12 273:9 275:3 276:7 277:11 283:9 284:8,17 <b>kinds</b> 38:1 40:20 178:6 274:19 <b>king</b> 211:5 <b>Kingdom</b> 144:17 145:6 <b>know</b> 8:20 12:6 17:14 20:12 22:13 28:14 29:9 36:6 37:3,7,15 38:2,6 40:10 45:12,17 49:18 51:13 52:13 55:4,9,10 61:5 63:5,15 67:22 68:7,18 70:10,11 70:11,19 71:5,13 72:1,13 73:4 74:6 75:7,20 76:5 78:21 80:4,8,15 80:16 83:6,10,10 85:1 86:18 87:5 87:12 88:5,8,9,18 91:3,3,5,7,19 92:2 106:2,22 107:3,5 113:16,21 119:4 130:2,3,7 136:11 138:7,12 139:15 139:22 140:5 141:11 147:7 148:13 150:5 158:5,11,21 159:9 159:13 160:6,10 160:22 161:10,10 162:12,22 163:19 164:6,15,16 165:2 166:1 167:8,13,14 167:15 168:13,13 168:21 169:15,17 170:6 171:7 172:6 172:10,17,21 173:16 174:10,17 175:16 176:18,19	176:22 177:5,6,14 178:15,15,22 179:8,15 183:1 184:19 185:7,22 186:7,8,11,17 187:9 188:5,7,12 188:22 189:7,8 193:17 197:18 198:7 202:14 203:1 204:9 211:3 211:9 212:3,7 214:5 215:8 220:15 224:6 225:18,21 226:11 227:5 229:22 230:20 233:1,3 235:6 239:16 240:13,21 241:2 242:13,18 243:5 244:16 250:15 252:18 255:9 257:8 258:3 259:8 259:10 260:9 267:1,2,3,4,9,11 267:16 269:11,16 269:18,18,21 270:2,6,8,8,13,14 270:16,17,18,21 271:6,8,20 273:8 273:12,13 274:3,6 274:8,11,15 275:5 275:8 276:12 277:9 280:20 281:13,21 282:8,9 282:9,10 283:20 286:10 <b>knowing</b> 72:16 87:7 113:20 119:3 136:21 186:9,10 <b>knowledge</b> 60:5 73:19 76:2 106:7 106:7 113:18,20 117:12,16 118:2 118:17,20 119:9 119:10,11,13,14 119:15,19 124:10 124:15 126:14	130:15,16,17 139:22 205:5 265:8 <b>knowledgeable</b> 251:19 <b>known</b> 28:8 138:13 148:21 151:8 <b>knows</b> 55:1 <b>Kolins</b> 2:14 51:16 53:15,16 133:14 135:20,21 184:4,5 <b>Kong</b> 151:13 <b>KPMG</b> 1:22 62:21 85:12 93:3 95:12 <b>KPMG's</b> 143:21 <b>Krause</b> 3:3 <hr/> <b>L</b> <hr/> <b>L</b> 2:4,6,16 <b>lab</b> 121:6 <b>label</b> 145:11 245:8 245:9 <b>Labor</b> 4:3 <b>lack</b> 28:3 30:16 106:7 112:20 113:7,11 115:8 118:16,20 119:3 119:10,18,19,21 119:22 120:1 124:15 126:6,13 126:14 130:14,17 130:18 139:22 153:14,15,18 155:3 202:20 246:18 <b>lacking</b> 175:21 176:1 <b>lacuna</b> 152:6 <b>laid</b> 145:12 254:22 256:6 <b>language</b> 52:15 53:4 69:14 90:18 153:16 <b>Lanka</b> 281:17 <b>large</b> 24:14 39:8 64:4 114:17 127:20 128:1 151:21 155:15	162:10 196:6 204:2 222:4 229:15 233:13 269:9 270:7 282:5 <b>largely</b> 226:1 <b>larger</b> 109:13 195:21 258:4 283:2,12 <b>largest</b> 44:10 49:7 <b>Larry</b> 4:7 198:19 211:10 215:10 218:21 220:1,10 221:8 230:8 276:9 280:18 <b>Larry's</b> 198:21 220:18 277:7 <b>lastly</b> 45:20 119:6 <b>late</b> 133:12 139:2 141:9 194:9 227:19 <b>lately</b> 138:13 <b>lattice</b> 107:21 110:19 164:7 <b>launched</b> 278:3 <b>law</b> 2:3,3 149:3 279:10,10 <b>Lawrence</b> 5:8 7:5 <b>laws</b> 60:6 <b>lay</b> 48:11,12 <b>laying</b> 45:12 256:17 <b>lead</b> 65:2 118:18,21 123:18 154:10,14 155:7 278:14,20 <b>leadership</b> 222:11 <b>leading</b> 16:8 222:12 <b>leads</b> 21:14 22:1,6 33:16 56:21 102:12 126:14,17 <b>learn</b> 60:17 279:9 <b>learned</b> 12:20 98:5 121:10 181:5 223:13 <b>learning</b> 241:3,7,9 243:10 <b>lease</b> 221:4	<b>leased</b> 213:10 <b>leases</b> 213:20 <b>leave</b> 186:15 290:16 <b>led</b> 11:10 98:19 198:15 290:13 <b>leery</b> 194:5 <b>left</b> 16:8 71:14 281:10 <b>leg</b> 229:10 <b>Lehman</b> 196:19 <b>Lehman's</b> 146:19 <b>length</b> 182:11 <b>Leonard</b> 93:5 <b>lessen</b> 158:16 <b>lessons</b> 223:13 <b>let's</b> 17:8 20:21 65:2 141:14 153:11 160:18 162:4 187:17,17 216:12 221:14,15 221:21 281:16 <b>letter</b> 10:15,18 48:11 64:16 75:5 86:17 <b>letters</b> 13:1 132:12 132:14 208:22 254:6 289:8 <b>level</b> 23:22 24:11 25:11 36:12 43:15 44:12 46:10,22 47:8,14,22 64:1,3 68:7,9 96:17 111:10 114:13 115:15,18,18 136:3,9,11 138:9 140:7 155:5,5,9 158:7,8 160:12 168:21 177:6 180:5 188:7 202:10 205:12 223:22,22 225:13 225:22 229:22 230:3,16 235:11 235:11 244:16 246:14,17,20,21 247:1 250:16
--	---	---	---	---

254:14 258:16,16 258:19 264:4,8 268:13,16,21 272:12 273:1,1,3 273:14 274:9,12 276:13,19 285:21 <b>levels</b> 19:16 88:22 223:21 237:20 239:5 254:10 269:22 275:7 <b>leverage</b> 178:8 <b>leveraging</b> 164:17 <b>Lew</b> 40:10 41:19 <b>LEWIS</b> 1:13 <b>liabilities</b> 70:8 212:17 213:1 230:14 268:8 <b>liability</b> 2:19 68:8 77:7 213:19 253:3 267:4 <b>library</b> 252:9 <b>license</b> 252:11 <b>licensing</b> 88:19,20 <b>lies</b> 146:3 165:2 <b>life</b> 2:13 36:9 100:21 211:15 212:15 262:2 <b>lifting</b> 160:12 <b>light</b> 17:18 53:12 <b>likelihood</b> 108:10 <b>likes</b> 274:18,19 <b>limit</b> 93:16 180:17 <b>limitation</b> 281:1 <b>limitations</b> 43:22 63:16 101:1 263:15 <b>limited</b> 2:15,16 54:2 186:2 243:9 245:7 263:13 264:18 <b>line</b> 41:12,12 95:21 128:16 137:5 148:21 232:6 269:12 290:3 <b>lines</b> 62:16 231:21 <b>linguistic</b> 52:21 <b>link</b> 34:15,20,21	<b>linkage</b> 99:18 <b>linked</b> 15:1 27:12 55:17,19,19 85:5 85:19 <b>linking</b> 56:3 <b>links</b> 28:2 <b>liquidation</b> 225:6 <b>liquidity</b> 152:8 182:16 <b>Lisa</b> 4:12 6:12 104:5,14,20 120:6 120:6 124:3 130:5 132:7 134:16 138:12 139:20 201:13 <b>list</b> 113:6 212:12 215:6,11 218:2 220:10,19 221:7 258:5,6 277:6,7 <b>listed</b> 143:8 <b>listen</b> 38:13 240:7 <b>listeners</b> 148:16 <b>listening</b> 19:8 100:15 147:21 175:15 <b>listing</b> 278:3 <b>lists</b> 162:13 259:20 259:20 <b>literally</b> 212:11 <b>literature</b> 105:10 105:11,12,15,17 106:13 121:2 130:7 136:18,20 137:13 147:16 206:13 211:18 212:10 228:13,14 <b>litigation</b> 65:5 214:19 <b>little</b> 25:17 28:17 31:17 34:14 58:19 66:9,16 68:15 69:10 71:3 80:5 86:9 88:14 90:16 91:1 113:18 115:2 120:9,9,11 123:15 146:15 148:20 169:7 172:5	179:17 191:14,19 203:9 211:12 242:17 248:2 252:18 267:20 270:16 282:13 <b>live</b> 191:4 196:18 286:3 <b>lived</b> 23:7 220:20 <b>lives</b> 172:20 212:14 <b>living</b> 186:4 <b>Liza</b> 5:2 6:7 22:4,6 34:1,6 40:12,14 41:3,3 45:4,10 <b>LLC</b> 1:18 2:7,20 3:11,12,13 5:7 <b>LLP</b> 1:22 2:14 3:2 3:3,9,10,16 5:5 <b>loan</b> 42:14 43:16,16 46:9 150:10,21 151:3,6 209:20 213:3 231:14 233:6 259:5 261:8 266:2 268:11 <b>loans</b> 148:8 234:1 <b>locate</b> 10:9 <b>located</b> 21:16 <b>locked</b> 183:18 <b>logical</b> 64:20 <b>long</b> 14:20 17:1 23:6 68:3,12 81:19 137:11,11 157:10 175:5 198:21 211:6 213:18 218:2 220:20 230:19 259:13 <b>long-dated</b> 226:2 <b>long-life</b> 70:7 <b>long-term</b> 30:11 103:14 233:7 239:19 274:13 <b>long-time</b> 62:21 <b>longer</b> 58:6 65:8 101:11 107:6 206:15 216:13 226:6 <b>longstanding</b> 58:6	60:4 <b>look</b> 9:1,17 16:11 22:14 23:3 24:3 30:4,5 31:1 46:2 48:10 52:1,6,7,21 62:9 64:20 66:3 66:14 68:22 70:1 70:7,14 74:4,15 74:21 77:22 79:19 82:18 83:20 91:15 97:13,19,21,21 105:14 109:21 110:22 111:4 129:9 137:15 142:11 144:13 154:16 156:13,16 162:2 164:19,21 165:6,7 167:8,17 169:14 171:7,7,12 172:5 174:11 177:3,8,11 178:13 179:3 183:3,6 190:8 222:21 227:10 232:1,2,2 232:4,4 242:2,4 242:12 243:19 244:5,18 245:8,18 247:12,14 250:17 251:14 252:4,19 252:22 253:8 261:9 263:13 264:19 267:10 273:20 279:15 <b>looked</b> 45:22 49:5 68:8 71:13 72:22 105:2,3,4 211:14 240:12,14,16 242:19,22 243:1 285:1 <b>looking</b> 20:13 30:17 31:4 34:16 47:6,17,19 49:6 53:19 69:7 75:12 76:1 85:12,20 107:14 109:6,17 112:22 115:1 120:22 132:11	148:19 163:14,20 171:1,8 173:2 174:3,21 176:22 177:19 185:13 187:2,10 190:19 204:11 206:11 209:20 226:13 241:1,4,11 243:12 245:21,21,22 246:15 248:4 249:1 253:17,18 257:9 261:12 262:13 263:21 278:19 280:9 <b>looks</b> 41:10 61:17 115:14 178:18 <b>loop</b> 174:20 <b>Loretta</b> 1:20 86:5 89:16 117:11 118:1 <b>lose</b> 100:17 196:19 <b>loss</b> 42:14 46:9 149:20 152:9 207:4 209:1,20 213:3,6,7,8 233:6 266:3 <b>losses</b> 43:16 93:17 93:20 110:13,14 110:15 149:10 150:13 206:14,19 209:5 231:14 259:5 261:8 266:2 <b>lot</b> 20:15 22:14 23:18 24:10 25:14 30:11 31:19 32:7 37:13 40:12,14 42:14,15 43:11 48:20 49:15 51:13 54:16 58:16 67:21 76:14 88:4 89:22 99:1 116:6 130:1 131:10 133:8,8 137:13,17 139:20 140:1,8 155:18 158:2,18 159:8,12 160:2 161:15 162:19,19 163:22
--	---	---	--	--

164:19 166:8 168:10,12,18 169:3 170:2 171:12 172:1,2,3 172:4 175:1 178:5 180:5 189:19 194:11,13 196:4,9 196:10 197:2,7,9 197:19 198:6,8 199:12 204:22 208:17 211:17,17 217:19 221:10 223:20 224:1 225:7,12,19 226:20 227:15,16 230:18 233:11 234:20 235:3,5,16 237:5 238:14 240:8 241:3,13 242:2,2 243:18 245:15 248:3,15 253:9 254:2 258:8 273:12 274:1,4,10 274:13 276:22 280:11 284:13 286:6 <b>lots</b> 86:11 87:17,17 148:10 168:13 228:4,15 237:16 <b>love</b> 160:8 180:9 190:16 208:19 256:7 <b>loved</b> 147:20 <b>low</b> 77:1 123:14 <b>low-interest</b> 73:19 <b>lower</b> 110:12 111:10 116:22 <b>lowering</b> 110:14 <b>lowest</b> 175:12 <b>lunch</b> 133:15 141:13 <hr/> <b>M</b> <hr/> <b>M</b> 1:14 2:3,11 4:18 <b>macro</b> 246:19 254:8 <b>macroeconomic</b> 107:2	<b>Mae</b> 231:13 233:21 <b>Mahoney</b> 2:15 4:21 6:10 57:4 92:7 210:12,13 266:8,9 <b>Mahoney's</b> 282:14 <b>main</b> 32:17 50:3 <b>Maine</b> 2:16 7:20 97:3 99:21,22 289:16,18 <b>major</b> 58:10 66:20 104:8 139:9,10 215:18 231:11 254:17,18 257:17 <b>majority</b> 32:6 <b>majors</b> 139:13 <b>makers</b> 63:16 92:22 <b>making</b> 9:21 31:3 31:13 33:2 51:21 68:2 69:1 79:17 89:9 137:3 159:10 174:13 183:14 185:12 187:2 200:20 251:13 277:19 <b>man</b> 30:1 148:4 <b>management</b> 1:18 2:18 3:9 5:2 6:21 18:21 22:16 26:15 27:18,22 28:21 31:4 33:2 35:16 36:3 45:19 47:1,3 49:12,13,15,17,21 50:9 51:7 54:17 56:19 59:22 60:2 60:3 61:19 62:7 62:14 63:7 64:12 65:8 73:8 78:14 78:16 79:7,11 80:1,15,16,17,21 80:22 81:18 84:18 88:1,21,22 90:2,5 91:17 97:11,14 99:3 108:1,3 110:6 117:17 119:3 134:21 135:8 143:7 148:7	165:18 167:10 190:20 191:8,12 195:15 201:11 203:6,13 206:15 206:22 207:7 208:3 217:6,6,12 218:13 227:22 233:1,5,12,17 234:6,18 240:16 240:17,18 241:18 242:7,11 247:22 248:21 249:1,18 255:1,5,16,18 256:5,8,10 261:5 261:21 263:1 266:18 267:10,17 272:4,6,9 275:20 279:12 281:7 283:17 287:14 <b>management's</b> 32:21,21 33:5 35:20 43:19 64:22 75:7,8 79:16,20 81:11 91:18 95:4 95:10 99:15 101:15 118:17,22 121:12,14,19,20 121:22 122:2,3 124:22 125:20 127:19 128:2,5 131:1,3 135:6 209:2 224:16 249:20 250:9 254:20 255:2,9,13 256:18 261:2,8,11 262:21 264:5 270:2 271:14 <b>management=s</b> 204:6 <b>managements</b> 202:11 <b>managers</b> 62:13 108:18,18 116:19 116:20 117:3,8 191:4 251:17 <b>managing</b> 2:5 3:1 5:1,4 6:20 143:6	164:2 199:2 222:10 241:21 <b>mandate</b> 233:22 <b>mandated</b> 20:4 <b>manifestation</b> 46:18 <b>manipulate</b> 93:16 <b>manner</b> 59:2 95:19 162:21 <b>manufactured</b> 144:1 <b>marked</b> 101:11 150:10 <b>market</b> 64:22 69:16 74:1 86:22 86:22 91:7,9,15 91:17 93:13 111:9 111:10,14,17 143:1 153:18,19 153:20 154:20,22 155:22 157:1 161:16,21,22 162:3,11,20 163:2 163:3,4,7,10,13 163:16,19 164:12 165:3,10,17,19 166:11 168:7,8,9 169:21,22 170:1 170:18,21 171:17 171:18,22 172:18 173:3,5,6 174:1,9 174:12,12,18 175:6 176:17,18 177:4,4,5,5,10,12 177:20 178:18 182:19,22 183:4,4 183:4,5,18 184:1 185:8,17 186:5,19 189:3 194:16 195:4 196:1 197:1 197:3 202:17 208:14 220:17,17 224:18,18,21 226:12 230:1 234:4 246:2 252:14 283:6 <b>market's</b> 111:4	228:5 <b>market-based</b> 81:3 81:13,15 <b>marketplace</b> 161:10 162:17 163:5 166:19 170:8,12 173:8,12 173:22 174:8 183:16 184:21 185:13 186:10,11 188:11 189:7 202:4 281:18 <b>markets</b> 111:17 117:18 147:4,14 149:11,12,17 150:11 181:21 182:15 224:8 227:1 251:20 <b>Marriner</b> 2:17 <b>Martin</b> 1:10,17 <b>Marty</b> 8:5 16:20 22:10 32:20 34:21 36:6 38:9 41:9,13 45:6 48:15 51:18 53:12 57:12 81:22 84:21 89:16 99:22 100:14 140:21 143:14 157:14,18 158:13 181:16 187:19 188:8 190:1 199:6 201:22 209:9 211:11 215:10 218:19 223:3,4,11 240:4 248:20 276:16 284:10,19 286:15 289:9 <b>Marty's</b> 181:4 <b>mast</b> 145:19 <b>material</b> 14:7,8,10 22:19 26:11 60:18 156:3 190:12 260:9 <b>materiality</b> 108:10 108:13 109:2,2,9 109:11,13,20 114:14,18 116:16
---	---	---	---	---



123:15 127:17,18 128:4,6 132:17,22 135:15,16 159:8 213:8 274:12 288:4 <b>materially</b> 127:20 <b>math</b> 251:16 <b>mathematician</b> 251:2 <b>mathematics</b> 179:11 <b>matrix</b> 230:6 <b>Matt</b> 4:10 6:17 142:20 160:18 175:8,11 180:15 187:20 196:6 242:18 243:16 244:16 245:15 252:8 <b>Matt's</b> 143:3 201:7 <b>matter</b> 10:17 17:1 52:21 60:3 117:2 141:18 193:11 197:3 221:16 237:7 290:20 <b>matters</b> 8:22 10:20 142:19 192:1 195:12 197:4,4 <b>mature</b> 146:3 <b>MAUREEN</b> 2:17 <b>maximize</b> 162:2 <b>MBS</b> 165:1 <b>MBSs</b> 245:5 <b>McANDREW</b> 5:2 6:7 22:4 <b>McDonough</b> 238:7 <b>McKesson</b> 59:10 82:12 <b>McNICHOLS</b> 2:17 <b>MD&amp;A</b> 78:15 217:6,13 <b>mean</b> 36:8 50:6 54:16 65:22 70:12 70:13,17 77:21,22 79:19 80:6,13 128:7 142:8 172:22 181:5	183:12 188:9 251:15 266:20,21 267:8,11 270:22 272:16 273:11,22 277:14 278:16 <b>meaning</b> 153:20 <b>meaningful</b> 10:21 14:4 70:18 151:15 267:13,15 <b>meaningfully</b> 72:4 <b>means</b> 82:14 106:16 108:18 124:15 125:2,3 126:7 127:10 196:9 265:2 <b>meant</b> 84:5,6 149:1 <b>measure</b> 81:14 90:6 134:22 <b>measurement</b> 42:15 43:9 44:13 44:16,22 46:10,11 57:22 101:9 106:15,15 108:21 109:5 132:16,22 198:9 206:19 208:6,7 211:4 218:3,10 237:21 276:19 278:16 282:21 284:16 288:1,3 <b>measurements</b> 9:17,19 10:14 11:2 12:10,14 17:8 56:13 66:21 69:7 92:13 100:20 104:4 107:14 142:6 156:7 200:21 201:13 215:21,22 229:21 236:2 239:20 258:4 259:10 266:14 278:19,21 279:3,7 287:17 288:9,15 <b>measures</b> 11:13 13:17 15:6 16:14 51:2 133:4 142:9	152:3 215:17 216:6 218:3 229:21 <b>mechanical</b> 26:2 230:2 <b>mechanics</b> 207:3 <b>mechanism</b> 119:13 119:16 229:5 <b>mechanisms</b> 225:19 <b>Meder</b> 5:1 6:20 143:5 187:18 190:1 <b>meet</b> 63:2 182:4 <b>meeting</b> 1:5 8:4,8 8:10,17,18 9:11 10:2,19 11:9,20 12:3,19 13:1 28:17 83:9 146:20 216:10 221:9 287:2,4,6 289:9 289:14 290:12,19 <b>meetings</b> 8:11 9:1,6 9:12 168:16 188:1 198:20 209:20 246:7 <b>member</b> 1:13,14,14 1:15 2:6 4:11,16 5:8 7:2,5 22:2 40:10 41:20,22 56:17 57:2,5 83:22 97:2 126:2 139:3 141:6 143:10 198:12,21 199:15 222:4,6,8 222:18,18 <b>members</b> 8:13 9:7 10:7 11:20 12:3 42:1,2,2,19 43:3 56:6 57:9 62:20 66:20,22 67:9,9 67:12 92:22 103:20 104:1,9 133:21 197:8 232:13 289:16 290:9 <b>memo</b> 126:16	<b>memos</b> 246:6 <b>mention</b> 9:4 252:16 <b>mentioned</b> 14:18 16:21 17:3 41:3 44:8,15 49:4,8 56:12 82:17 94:19 98:1 99:13 113:8 132:11 137:20 150:2 153:1,6 188:8 195:10 196:6 201:22 233:3 236:8 239:22 241:19 244:17 245:15 250:14 279:8 <b>mentions</b> 135:22 <b>mentoring</b> 29:6 191:17 <b>merely</b> 36:2 129:1 192:9 <b>merge</b> 75:18 <b>merged</b> 71:9 <b>Merkel</b> 147:18 <b>messages</b> 51:14 <b>met</b> 64:13 <b>metaphor</b> 278:7 <b>method</b> 106:18 129:7 244:13,14 280:1 <b>methodologies</b> 36:18,19 37:4,6 51:10 100:4 166:2 167:19 <b>methodology</b> 1:21 169:9 <b>methods</b> 15:15 24:6 25:8 77:15 121:4 123:2 131:8 173:2 197:17 231:1 243:3 280:13 <b>metrics</b> 97:14 280:1 <b>MICHAEL</b> 2:5 <b>microphone</b> 120:9 <b>middle</b> 185:20 186:14 187:6	248:18 250:4,13 283:6 <b>midstream</b> 25:17 <b>Mike</b> 157:16 160:16 187:16,17 201:21 211:21 219:13 <b>Milici</b> 4:12 6:12 <b>million</b> 151:6 161:1 164:16 173:5 180:3 188:14 244:17 <b>millions</b> 145:20 <b>mind</b> 20:7,21 45:18 49:9 58:8,13 63:8 67:14 80:13 83:12 114:7 210:5 212:6 283:19 <b>minds</b> 82:5 <b>mindset</b> 80:6 137:19 138:1 <b>mini</b> 236:16 <b>minimize</b> 158:16 <b>minimum</b> 158:8 <b>Minister</b> 147:18 <b>minute</b> 68:13 221:14 250:18 277:6,7 <b>minutes</b> 204:14 212:11,12 230:8 230:10 <b>missing</b> 23:14 46:14 131:6 <b>mission</b> 224:10 <b>misstatement</b> 14:7 14:8,10 53:1 108:11 116:9 119:15 126:22 128:15 260:9 <b>misstatements</b> 52:22 135:19 <b>mistakes</b> 205:21,22 <b>misunderstand</b> 126:15 <b>mitigate</b> 111:13 184:21 <b>mitigated</b> 140:9
--	---	--	---	---

<b>mix</b> 117:17	<b>moderate</b> 123:14	160:2 223:5	<b>necessarily</b> 9:7,9	226:20 243:15
<b>mixed</b> 259:11	<b>modestly</b> 74:22	238:15	69:3 71:5 83:1	255:21
<b>Moberg</b> 5:2 6:7	<b>moment</b> 17:19	<b>MSRB</b> 162:6	107:11 118:3,4	<b>needing</b> 185:1
22:4 41:9	62:17 153:10	166:13	137:12 142:3	<b>needs</b> 9:21 29:17
<b>mode</b> 122:5	<b>money</b> 162:19	<b>multi-element</b>	155:6 248:17	33:11,22 44:17
<b>model</b> 20:17 26:20	163:22 165:15	213:6	249:9 251:21	60:7 95:19 159:1
31:13,14 107:16	166:8	<b>multiple</b> 24:12	253:14 261:15	201:7,10 207:8
107:19,20 108:1,2	<b>monitor</b> 90:5	30:12 38:20,21	<b>necessary</b> 48:2	252:3 259:17
110:18,19 113:1	207:20	39:22 123:2	67:16 73:12 77:9	260:2 267:17
115:10 116:12	<b>monitoring</b> 243:10	<b>muni</b> 196:3	77:13 89:11	279:17
119:7 121:13	263:7	<b>municipal</b> 164:22	118:17 130:13	<b>negative</b> 159:21
122:13 123:3	<b>Monte</b> 164:6	230:5,5 245:3	131:17 133:2	<b>negotiated</b> 70:3
125:4,13 132:19	<b>month</b> 196:12	<b>munis</b> 162:6	155:4 206:15	<b>Neimeier</b> 238:8
144:15,16 150:6	204:12	<b>Munter</b> 5:3,15 6:4	210:1 214:12	<b>neither</b> 31:19
154:6 164:5 176:4	<b>months</b> 60:18	21:12 22:10 34:20	261:19	<b>Nelson</b> 119:7
176:11,15 177:20	85:13 151:9	37:7 46:20 53:22	<b>necessity</b> 118:9,10	<b>net</b> 93:17 128:8
179:12 181:9	<b>Moore</b> 3:15	54:15	224:16	144:7 177:1
186:4,5,8 191:12	<b>Morgan</b> 231:12	<b>Murdoch</b> 145:19	<b>need</b> 10:21 11:3	<b>never</b> 116:17
192:9 206:10,11	<b>morning</b> 8:5 38:9	<b>Murray</b> 2:19 51:15	26:18 37:4,5,19	146:21 149:1
209:1,4 211:2	57:11 92:7 102:5	53:11,12 281:12	37:19 44:20 50:18	172:16 194:8
213:22 239:11	104:1 105:22	284:7,10	50:19 51:5 52:10	206:1 278:3
248:12,19 249:5,6	120:16 130:6	<b>Myers</b> 110:11	53:4 55:13 58:16	<b>nevertheless</b> 176:5
263:13 266:3	141:7 160:11	<b>myopic</b> 125:1	66:8 72:5,6 75:20	<b>new</b> 10:22 11:17
270:5 275:10	193:10 201:1		76:8 77:3,4 89:8	13:3,21 14:5,22
279:18	205:1 215:13		111:22 119:15	16:13 17:20,20
<b>models</b> 15:15 31:13	237:2 259:22	<b>N</b>	124:8 130:3 132:3	19:5,22 34:21
31:19 77:15 107:1	<b>mortgage</b> 195:16	<b>N</b> 8:1 93:5	133:2 136:12	36:11 39:6 42:13
107:20,21,22	234:1 245:8 253:4	<b>N.W</b> 1:10	139:11 175:17	50:2 65:7,14,19
108:2,3 109:19	<b>mortgage-related</b>	<b>naive</b> 34:8 182:2	181:1 183:5 184:1	93:6 120:13
110:9,11,15 111:2	143:4	<b>name</b> 83:21 139:6	186:8,9 188:16	137:15,17 143:8
111:3 113:14,15	<b>mortgages</b> 148:9	205:21 207:16	189:10 191:18	156:20 162:22
113:17 115:11	148:11 253:5	220:13	200:12,12,13	199:21 205:2
118:18 124:12	<b>motion</b> 280:4,5	<b>narrative</b> 217:6	201:6 204:6,18	207:13 209:17
154:6 156:14	<b>Motors</b> 3:13	<b>narrow</b> 155:13,15	205:7,18 207:17	214:6,12,18
157:3 163:17	<b>mouth</b> 81:6 118:20	157:13	207:19 208:10	229:11 233:19
164:7 165:13	<b>move</b> 51:17 84:16	<b>narrowing</b> 132:18	210:11,19 214:6	235:4,8 237:13
168:2,2,3 169:8	120:8 130:4,20	<b>narrowly</b> 161:14	214:18 218:9	239:3 266:1 285:9
175:16 176:2,3	136:19 160:14,18	287:7	220:4,11,19	289:3
177:16 178:4,7,21	190:10 193:22	<b>nationally</b> 44:5	235:18 236:10	<b>news</b> 128:17
179:3,3 182:8	213:20 219:4	<b>natural</b> 52:8	237:3 239:2	<b>nexus</b> 205:5
186:1 191:15	229:2 260:3	<b>nature</b> 59:12	249:15 267:19	<b>niche</b> 257:10,13
197:16 201:5	280:10	172:11 176:5	268:3 283:9	<b>night</b> 177:18
232:2,17 242:13	<b>movement</b> 239:14	191:22 198:10	285:14 287:13	<b>Nike</b> 5:14 141:21
242:14,16 246:1,1	284:13	230:13 281:9	<b>needed</b> 48:6 59:11	<b>nine</b> 161:8
246:2 248:2,7,8	<b>moving</b> 16:22	<b>navigate</b> 10:8	63:13 77:17 94:14	<b>Nobel</b> 193:3
249:13 252:5,10	19:20 84:17	<b>near</b> 141:13 196:17	124:10 130:10,21	<b>non-audit</b> 65:11
252:12,14 253:6	155:10 158:15	278:4	131:12 192:16	83:2,3
		<b>nearest</b> 127:22		
		<b>nebulous</b> 129:1		

<b>non-complex</b> 261:19	77:1 99:6 101:10 101:11,18,19	201:19 282:14,15	166:18	<b>open</b> 186:15 253:10
<b>non-compliance</b> 39:18	106:21,21,22 107:20 108:3	<b>observations</b> 36:8 82:10 89:19 104:4	<b>office</b> 3:7 4:3 5:2 5:17,22 22:6 256:14	<b>operating</b> 25:19
<b>non-distressed</b> 181:18	109:1,12 110:4 112:15 114:22	<b>observe</b> 176:18 182:18 204:1,6 209:12	<b>officer</b> 2:1,20 3:10 3:13 4:17 5:1 6:20 100:1 143:6 143:8 190:4,6	<b>operations</b> 233:13 269:9
<b>non-economic</b> 215:21	116:16 124:5 133:21 154:13	<b>observed</b> 81:4 107:3 285:7	<b>Officer-Attest</b> 3:2	<b>opine</b> 210:18
<b>Non-systematic</b> 134:7	158:20 188:7,7 190:9 194:11	<b>observers</b> 4:1 8:14	<b>officers</b> 99:10,13	<b>opinion</b> 52:18 58:19 65:9 145:8 161:14 207:12
<b>non-useful</b> 274:3	205:22 218:5,8,14	<b>obsolescence</b> 212:20	<b>oh</b> 63:6 66:8	<b>opportunistic</b> 110:5
<b>Nonexecutive</b> 2:10	218:15 222:4,11	<b>obtain</b> 12:19 14:14 18:21 79:3 130:19 131:7 165:10 270:2	<b>okay</b> 20:21 24:16 28:11 59:12 63:6 66:7,8 79:18 84:15 86:8 88:11 106:11 159:12 184:3 223:3 224:15 227:7	<b>opportunities</b> 65:7 258:12
<b>noon</b> 285:11	224:6 227:5 238:18 240:11 243:5,16 254:18 264:18 266:7 267:1 274:19	<b>obtained</b> 15:22 24:18	<b>old</b> 36:9 163:13 194:14 212:15 235:6 276:6	<b>opportunity</b> 8:3 13:5 22:14 89:20 89:21 92:8 159:2 199:7 223:16 240:7 256:22
<b>normal</b> 182:12 211:13	<b>numbers</b> 59:5 60:2 70:17 101:3 111:18,20,20,22 112:2 149:11 151:12 155:18,21 178:2 197:10 204:3 217:15	<b>obtaining</b> 14:17 165:19 173:3	<b>older</b> 17:6 145:7	<b>opposed</b> 73:2 94:6 197:6
<b>normally</b> 261:21	<b>numerable</b> 193:10	<b>obvious</b> 32:17 61:4	<b>Omberg</b> 5:4 7:11 222:9 240:4 266:20 269:19 271:18	<b>option</b> 110:21 149:17
<b>North</b> 278:13,14 279:20 280:9	<b>numerous</b> 23:2	<b>obviously</b> 34:9 43:10 56:12 69:19 79:1 92:10 141:5 198:6 201:14 228:17 231:13 232:10 250:1,11 263:10	<b>omission</b> 53:2	<b>options</b> 131:22 212:16
<b>notable</b> 104:1	<b>O</b>	<b>occasion</b> 26:14 96:9	<b>omissions</b> 53:1	<b>order</b> 27:17 28:22 41:22 48:5 65:9 79:7 131:8 205:17 206:2 207:5 226:8 234:3,9 239:21
<b>note</b> 17:13 19:6 57:20 95:12 105:11 122:20 123:22 135:16	<b>O</b> 8:1	<b>occasionally</b> 272:8 283:8	<b>onboard</b> 18:15 251:7	<b>orderly</b> 225:4 226:9
<b>noted</b> 11:9 21:3 36:11 46:7 105:12 124:7 128:11 262:12 272:20 273:5,6,6	<b>oath</b> 235:1	<b>occasions</b> 12:11	<b>once</b> 164:11 260:22	<b>ordinarily</b> 182:5
<b>notes</b> 21:2 245:4	<b>objective</b> 82:8 112:21 154:20 224:8 239:8 271:7 271:9	<b>occur</b> 25:21 26:14 84:11,12 93:18 229:7	<b>one's</b> 60:16	<b>organization</b> 9:10 68:6 184:19 201:8
<b>notice</b> 125:7,9 129:12	<b>obligation</b> 136:8 221:2 230:21	<b>occurred</b> 74:14 84:13	<b>one-size-fits-all</b> 46:8	<b>organizations</b> 2:9 67:4,12 152:19 187:11
<b>noticed</b> 36:14	<b>obligations</b> 213:1 259:1 268:7 281:2 281:8	<b>occurrence</b> 25:5 112:20	<b>one-stop</b> 158:16	<b>organized</b> 8:11 11:8
<b>noting</b> 250:15	<b>observable</b> 115:8 162:3 172:22 177:10,12,15 182:14	<b>occurring</b> 105:16 127:4	<b>one-third</b> 123:12 127:5	<b>organizing</b> 223:4 240:5
<b>notion</b> 82:1 86:9 237:19	<b>observances</b> 109:8 119:21	<b>occurs</b> 89:2	<b>ones</b> 137:3 151:22 235:18	<b>oriented</b> 280:11
<b>Notre</b> 115:12,12	<b>observation</b> 86:4 92:10 96:20 181:12,17 200:17	<b>October</b> 1:7 94:2	<b>ongoing</b> 93:15 193:2,11 207:8 229:3 269:9	<b>original</b> 8:10 62:20 224:13
<b>notwithstanding</b> 11:19		<b>odd</b> 168:13	<b>Onion</b> 5:7 56:17	<b>Oscar</b> 205:19
<b>November</b> 10:16 34:17 238:2		<b>offer</b> 199:18 211:12	<b>online</b> 43:2	<b>outbound</b> 185:17 187:1
<b>nuances</b> 102:18 103:6		<b>offered</b> 138:22	<b>onset</b> 227:18	
<b>number</b> 10:13 13:11 30:14 31:1 35:21 43:8 57:21 58:1,21 67:14 69:13 70:19 76:22		<b>offers</b> 162:12	<b>onsite</b> 243:19 246:7 <b>oops</b> 91:7	

<b>outcome</b> 107:16 108:4 112:20 113:1,6 115:22 116:3,8,13,14	<b>ownership</b> 267:18	211:14 212:4 215:15 227:20 243:2 248:22 252:18 254:3 255:1 256:6 284:4 286:21,22 287:8 288:11,16,21	96:22 192:5 256:22	199:5 209:9 210:7 210:13 221:8
<b>outcomes</b> 107:10 109:20 110:9 111:3 113:12 116:17 119:12,12 128:21 218:12 285:3	<b>P</b> <b>P</b> 2:15 3:13 4:21 5:9 6:10,15 8:1 <b>P.C</b> 2:12 4:19 <b>p.m</b> 141:19,20 221:17,18 290:20	<b>papers</b> 27:9,12 114:22 125:10 129:14 137:12,19	<b>participated</b> 12:15 17:15 67:3 94:3 <b>participating</b> 290:11 <b>participation</b> 16:12 179:22 290:10	<b>Pat's</b> 211:16 <b>path</b> 65:19 278:20 284:1 <b>paths</b> 177:1,2 178:10,13,16
<b>outliers</b> 171:7 <b>outline</b> 65:19 <b>outlined</b> 63:21 <b>outlook</b> 208:13 <b>output</b> 107:16 248:12,17 249:7 250:7	<b>packages</b> 110:20 <b>page</b> 230:11 <b>Pages</b> 201:17 <b>paid</b> 144:11,14 <b>panel</b> 11:19 16:17 20:22 21:6 22:11 51:12,17 54:4 56:5,9,15 57:4,12 57:16,19 89:15 92:8 96:22 97:3,6 100:12 103:20,21 103:22 141:5,8 142:4,5 143:13 197:22 198:4,19 221:20 222:1,9 277:17	<b>Paquette</b> 2:20 100:11 102:3,4 <b>paradigm</b> 136:19 163:13 <b>paragraph</b> 47:16 47:21 224:13 227:21 228:2 <b>paragraphs</b> 39:13 39:18 117:2 <b>parallel</b> 191:6 284:1 <b>parameters</b> 207:16 <b>ParenteBeard</b> 3:11 <b>part</b> 23:12 27:1 35:5 46:5 50:6 52:12 79:15 96:1 97:3 98:6 99:5 117:18 140:4,11 140:11,20 141:1 166:4 167:6,13 169:17 172:14 185:20 191:17 228:19 231:18 232:10 233:4 237:21 238:22 255:10,20 256:8 262:19 269:20 271:13,19,21 272:1 280:12 288:16	<b>particularly</b> 12:13 18:1 27:6 68:19 95:16 97:2,11 201:2 203:18 223:14 263:21 264:19 265:22 268:6,10 281:22 <b>parties</b> 12:13 79:10 99:7 208:22 224:6 228:21 248:1 <b>partly</b> 143:18 <b>partner</b> 1:21 2:5,14 2:16 3:1,3,9,15 5:4 29:4 47:2 62:21 67:18,19 73:5 83:22 139:20 140:2 143:22 222:7,10 <b>partners</b> 77:8 115:16 127:1,4,5 139:5 140:5 240:11 257:7 <b>parts</b> 18:7 160:2 277:8 <b>party</b> 258:1 276:4 <b>pass</b> 171:13 252:15 253:20 <b>Pat</b> 198:13,18	<b>Patrick</b> 4:11 7:2 198:12 <b>Paul</b> 3:9 96:8 153:1 <b>pay</b> 75:22 253:11 <b>PCAOB</b> 1:12,17 5:3,4,12 6:3 7:17 8:20 9:7,8 10:10 17:15,19 19:15 20:6,22 21:4,7 34:10 38:16,22 39:5 40:5 41:20 63:19 71:15 82:18 82:20 90:8 94:18 95:1,21 101:7 119:20 135:3 142:3,3 157:13 175:14 202:3 223:4 237:10 255:15 256:22 266:11 282:15 286:5 <b>PCAOB's</b> 8:5,8 21:13 22:5 92:10 95:7 160:4 232:11 234:20 <b>peaked</b> 150:14 <b>pension</b> 68:21 124:2 204:4 213:1 258:22 268:6 <b>pensions</b> 271:3 <b>people</b> 10:9 38:12 48:16 51:13 58:1 68:7 72:1 74:10 74:11,13 75:21 76:7 77:13 80:8 87:21 88:13,19,19 89:9 117:2 126:1 126:3,4 130:20 139:22 141:14 147:2 148:8,13
<b>outreach</b> 12:12,18 12:20,21 <b>outright</b> 234:12 <b>outset</b> 285:18 <b>outside</b> 79:4 84:17 90:10 127:20 160:3 283:8,10 <b>outsource</b> 261:6 <b>outstanding</b> 161:17 290:14 <b>overall</b> 48:17 75:4 122:18,19 124:14 125:5 247:6 280:6 287:11 <b>overlap</b> 19:9 261:16 <b>overlook</b> 125:12 <b>overridden</b> 205:15 <b>overseas</b> 148:16 <b>oversight</b> 1:1 12:21 20:2 21:4 83:15 92:2 195:15 271:2 289:20 <b>overt</b> 233:5 <b>overview</b> 7:14 13:6 <b>overwhelming</b> 188:15 <b>overwhelmingly</b> 121:12 123:2	<b>panelist</b> 11:21 56:20 143:5 <b>panelists</b> 8:14 9:5 10:8 21:11 45:10 141:7 142:2,10 192:15 195:11 290:8 <b>panels</b> 11:9,10,11 11:13 12:2 240:8 <b>paper</b> 7:14 9:15 10:2,5,11,12,20 11:3,4 12:18,22 13:5,14 15:7,11 15:12,20 16:1,4 16:10,21 17:3 19:11 20:14 21:2 49:14,15 50:7,14 51:6 92:21 93:2,7 94:3,11,18 103:8 105:3 108:16 110:16 118:11 123:8 137:18 179:20 180:7 199:20 203:10	<b>participate</b> 8:17		

149:4 153:7,7 155:7 158:21 187:10,12 203:21 204:19 205:16,18 206:4 211:19 215:2 224:9 225:15,20,20 228:16 236:22 238:10 239:22 240:2 245:16 250:21 269:11,14 276:20 286:10 287:15 <b>perceive</b> 67:15 68:11 <b>perceived</b> 214:17 <b>percent</b> 73:17 95:6 109:6,8,10 114:4 114:4,6,9,11,15 114:16 161:18,19 172:9 180:4 <b>percentage</b> 26:3,16 26:19,21 212:20 266:15 <b>percentages</b> 26:9 <b>perception</b> 52:5 270:15 <b>perceptions</b> 69:5 74:7 154:12,15 <b>perform</b> 77:10 121:16 135:6 178:4 182:9 210:2 <b>performance</b> 35:14 38:15 104:17 158:7,8 160:12 163:9 194:15 216:14 279:16 <b>performed</b> 12:11 29:7 64:14 158:22 178:1 249:1 <b>performing</b> 33:21 73:10 79:5,12 177:21 <b>period</b> 17:20 38:3 71:17,17 93:18 159:11,11 223:17 230:14 262:4	<b>periodic</b> 21:15 227:1 <b>permits</b> 93:9,14 <b>permitted</b> 60:15 61:14 62:15 135:16 <b>persisted</b> 145:15 146:12 <b>person</b> 72:10 86:18 86:19 186:9 197:8 <b>personal</b> 9:6 40:22 142:2 214:22 <b>personally</b> 62:11 85:17 145:10 <b>perspective</b> 30:11 31:8 32:1,12 33:20 40:19 45:13 48:2 58:9 59:5 61:17 65:16 66:10 72:18 102:22 117:12 134:5 169:5 190:3,14 192:11,18 211:15 215:1 231:10 233:10,11 242:5 242:18 244:20 247:7 253:15 257:6 263:7 284:14 <b>perspectives</b> 6:8,11 7:9 11:14,15 16:7 56:9 58:9,13 68:14 221:21 222:21 <b>persuaded</b> 63:14 <b>pertaining</b> 9:16 <b>pertinent</b> 79:2 107:6 133:3 <b>pervasive</b> 88:17 196:15 258:12 267:5 <b>Peters</b> 5:5 6:9 56:20 66:6,7 77:18 79:18 90:14 92:3 103:5 138:16 <b>Pfizer</b> 1:20 <b>Ph.D.s</b> 251:16	<b>pharmaceutical</b> 87:11 88:7 <b>Phelps</b> 5:1 6:20 143:7 <b>Phil</b> 100:10 102:3 <b>Philip</b> 2:10 3:10 41:7 48:14 84:20 94:19 117:1 218:18 <b>Philip's</b> 91:9 <b>phone</b> 175:3 <b>phrase</b> 135:18 <b>physical</b> 101:1 <b>physics</b> 101:21 102:1 <b>pick</b> 51:18 89:17 135:1 227:9 <b>picked</b> 49:22 218:8 <b>picking</b> 84:21 <b>picks</b> 45:7 <b>picture</b> 128:6 129:10 138:1 <b>piece</b> 35:15 36:4 140:21 185:20 186:2,14 187:5 <b>pieces</b> 36:5 148:10 148:10 216:13 219:22 <b>pinpoint</b> 231:4 <b>pit</b> 171:5 <b>place</b> 39:4,17,21 49:2 54:21 57:18 62:6 108:10 163:7 168:22 169:13,16 171:4,5,6,22 173:22 174:1 188:22 228:10 235:17 252:3 <b>places</b> 43:9 111:10 155:14 <b>plain-spoken</b> 63:1 <b>plainspokenness</b> 63:7 <b>plaintiff's</b> 280:6 <b>plan</b> 8:10 124:2 189:20 260:11 <b>planes</b> 286:10	<b>planned</b> 57:14 128:20 <b>planning</b> 97:15 223:11 232:11,13 272:8 <b>platform</b> 171:14 <b>platforms</b> 163:15 <b>Platt</b> 3:1 41:7 45:5 45:6 48:4 81:5 215:12 <b>play</b> 40:9 61:20 185:10 208:8 221:13 <b>playing</b> 70:5 215:13,19 <b>plays</b> 55:6 139:14 <b>pleasant</b> 223:17 <b>Please</b> 62:17 <b>pleased</b> 104:5 <b>pleasure</b> 8:7 29:22 187:21 <b>Plourde's</b> 256:14 <b>plus</b> 161:8 <b>point</b> 15:18 20:20 23:11 29:14 37:12 38:5,7 41:5 44:20 50:12,22 51:1 61:16 63:12,14 64:20 68:1 82:17 82:20 84:22,22 88:13,15,18 89:8 90:9 91:9 96:15 99:3,13,16,20 100:1 101:18,20 107:12 108:6,8,12 111:11 112:6 113:6,19 127:22 128:5 132:5 134:11 152:21 157:17,21 158:5 158:20 160:8,12 174:6 191:8,12 193:18,19 194:5,7 197:21 215:12 227:11 229:1,20 230:12 234:10,20 236:1 237:1 238:5	239:5 243:10 245:20 251:20 254:17 270:21 274:17 280:2,2 <b>point-range</b> 127:15 127:16 <b>pointed</b> 38:21 47:16 68:22 86:4 114:3 145:5 237:6 <b>pointing</b> 76:21 77:1 148:3,4 256:3 <b>points</b> 16:9 44:15 132:15 133:1 162:14 166:21,22 216:15 250:22 254:18 <b>policy</b> 5:6 21:21 56:21 63:16 92:22 198:14 <b>political</b> 147:17 <b>Polson</b> 3:3 133:14 139:19 <b>pontificate</b> 220:4 <b>pools</b> 196:21 243:8 <b>poor</b> 153:15 197:16 <b>population</b> 245:7 <b>portal</b> 170:19 <b>portfolio</b> 130:3 134:10 172:14 191:4 195:15,16 234:1 268:15 <b>portfolios</b> 151:20 172:14,15,16 196:22 258:15 268:12 <b>portion</b> 116:18 235:7 <b>portrayed</b> 218:4 <b>posed</b> 275:22 <b>poses</b> 138:20 <b>posing</b> 196:8 <b>position</b> 94:16 182:12 204:10 231:16 279:16 <b>positive</b> 19:17 23:12 35:9 53:19 132:4 159:19,22
---	---	---	---	---

197:14	<b>practitioners</b>	<b>presented</b> 36:3	193:16 196:12	39:4 40:3 41:4
<b>possibilities</b> 22:18	104:10 240:22	42:6 134:16 142:2	208:14 228:1	46:8 49:7 88:8
227:13	<b>PRATT</b> 3:4	218:6	229:22	109:22 135:1
<b>possibility</b> 255:3	<b>precise</b> 123:20	<b>presenters</b> 4:9 9:6	<b>pricing</b> 12:15 17:17	149:22 152:4
276:5	200:13 274:2	<b>presenting</b> 13:13	19:3 24:3,7,12,12	170:9 184:9
<b>possible</b> 11:2,17	<b>precision</b> 153:16	<b>presents</b> 269:4	80:10 107:21	225:11 236:12
15:8,9,20 19:14	<b>predominantly</b>	<b>President</b> 1:20 3:11	110:19,21 142:21	239:14 242:9
65:10 81:17	108:19	5:6 56:16 142:15	143:2 166:3	245:18 247:3
107:12 108:4	<b>prefer</b> 81:15	147:18,19	168:22 179:21	250:18 267:17
109:5 136:3	<b>preliminary</b> 181:12	<b>President-Finance</b>	180:10,11,13,21	268:19 271:16
139:12 171:2	288:17	2:1	181:6,10 184:12	272:3 273:9
209:17 218:15	<b>premise</b> 285:12	<b>presiding</b> 1:11	184:13 187:22	275:11 277:3
249:17 280:22	<b>prepaid</b> 213:5	<b>press</b> 42:11	188:13 216:8	285:20
<b>possibly</b> 87:5	<b>preparation</b> 55:12	<b>pressure</b> 237:14	224:3 225:14	<b>problem</b> 22:12
141:13 217:9	<b>prepare</b> 121:17	<b>pressures</b> 73:8	230:6 235:13	25:4 36:16 46:18
263:22	130:9 131:4	228:21 229:13	242:19 243:13	47:7 58:2 62:10
<b>post</b> 258:22 268:6	166:12 202:12	<b>presumption</b> 63:17	244:1,2,6,12,12	83:5 91:9 112:3,4
<b>posted</b> 173:11	<b>prepared</b> 96:21	130:10	245:1,11 246:17	112:5 113:21
<b>potential</b> 13:2,10	167:3 255:4	<b>presupposes</b> 91:16	247:11,12 254:8	125:16,20 134:2,3
17:16 20:16 35:18	267:11	<b>pretty</b> 23:17 30:4	258:1,18 263:17	134:19 136:15
48:13 50:2 218:11	<b>preparedness</b>	46:22 47:4 90:12	264:16,17,18	146:3 152:22
221:13	135:6	126:9 134:19	282:10	153:21 269:20
<b>potentially</b> 79:9	<b>preparer</b> 102:10	136:20 178:21	<b>primarily</b> 101:6	282:4 285:2,19,19
102:21 142:8	189:5 190:3	179:6 231:19	285:5	<b>problematic</b> 27:15
188:4 267:7	<b>preparer's</b> 166:6	244:21 248:13	<b>primary</b> 95:19	28:1 52:4
281:22	<b>preparers</b> 102:17	282:8 285:11	213:11	<b>problems</b> 25:13,14
<b>pounds</b> 150:14	267:13 268:3	<b>prevalent</b> 259:2	<b>Prime</b> 147:18	25:20,21 28:14
151:6	<b>preparing</b> 123:4	<b>previous</b> 9:12	<b>principally</b> 211:8	39:20 44:16 75:21
<b>PowerPoint</b> 105:9	206:8	19:19 57:16	<b>Principle</b> 143:7	82:13 105:11,12
<b>PP&amp;E</b> 212:14,21	<b>prepayments</b>	<b>previously</b> 225:22	<b>principles</b> 202:1	105:15,16 120:5
213:11	178:11 189:8	276:17	207:12 210:20	120:15,18 123:6
<b>practicability</b>	<b>prescribed</b> 259:20	<b>price</b> 24:14,15	216:5	124:6 125:21
65:22	<b>prescriptive</b> 219:1	91:15 111:16,17	<b>principles-based</b>	133:22 146:16
<b>practical</b> 66:2	285:9	144:10,14 154:7	259:14,19 260:6	149:18 150:22
83:18 212:3	<b>presence</b> 130:12	162:1,14 164:13	288:13,19,22	152:5 155:12
<b>practicality</b> 231:4	131:20 200:18	165:4 166:22	289:1	181:20 191:5
236:3	<b>present</b> 62:9	173:4 180:6	<b>prior</b> 38:20 142:14	217:22 277:18
<b>practice</b> 2:11,12	166:16 170:4	181:19 182:6,11	172:18 198:22	278:16 285:14
3:1,8 4:18,19 5:5	177:1 209:3	183:13 193:22	251:17 262:5	<b>procedures</b> 14:16
17:13 19:6 74:6	239:17 255:8	195:20,21 212:16	<b>priorities</b> 17:18,22	15:10,11,12,19
84:5 85:18 96:18	265:19	225:3 226:8 230:1	<b>private</b> 2:18 136:5	16:2,3 33:12,19
149:1 222:10,16	<b>presentation</b>	244:11,18 247:13	245:8,9	33:21 45:20 46:13
222:17,19	133:19 138:12	247:17 265:5	<b>Prize</b> 193:4	70:18 71:2,3
<b>practices</b> 10:22	190:2,5 274:20	<b>priced</b> 177:11	<b>probability</b> 87:10	73:10 75:5 90:12
126:7 167:16	275:1 287:1	178:19	193:21 213:7,8	113:7 131:16
258:17	<b>presentations</b>	<b>prices</b> 24:13,17,19	<b>probable</b> 221:1	140:14 161:20
<b>practicing</b> 139:20	11:21 12:2 168:19	162:15 183:10,11	<b>probably</b> 38:19	167:20 180:6

185:5 200:12,15 216:9 231:19,20 256:11 259:20 <b>proceed</b> 203:1 <b>proceeding</b> 286:4 <b>proceeds</b> 164:21 <b>process</b> 15:13 32:21 45:1 47:11 47:11 49:13 53:17 54:1 55:4 63:21 79:3,12,15 90:4 101:14,15,22 105:19 112:17,18 113:1 116:12 117:5 120:2,4 121:12 122:1,2 123:3 125:1,2,3 125:20 131:1,3 137:10,10,11 140:13 149:15 162:5 164:3 165:17 166:4,7 167:20 169:14 173:16 174:7,11 175:18 180:11 182:20 183:3 186:18 191:18 195:3,3,5 199:17 203:1,21 204:1,11 204:15,18 209:2 209:13 220:6 221:10,11 243:11 247:3,5 248:10 254:20 255:2,10 255:10,21,22 256:9 261:2,5,8 261:11,15 263:20 272:8 277:12 278:8,13,18 279:6 279:7,7,9 280:10 285:16 <b>processes</b> 33:5 54:18 79:14,21 107:7 118:13 159:10 161:20 178:1 184:18 185:4 231:19	285:7 <b>processing</b> 106:9 <b>produce</b> 71:6 <b>produced</b> 102:8 156:17 <b>produces</b> 127:16 <b>producing</b> 103:4 <b>product</b> 77:7 80:2 87:7 117:17 153:20 <b>products</b> 154:7,13 154:13 <b>profession</b> 29:18 75:12 84:13,14 95:15 96:11,13,19 102:9 136:4 138:21 152:22 153:1 156:11 157:9 158:1,3,9 159:9 202:5,5 228:9 238:12 271:2 <b>professional</b> 1:17 2:11 3:1,8 4:18 5:4 8:6 18:20 27:6 28:3 30:21 32:18 37:1 45:19 49:18 50:9 52:13 52:18 97:4 119:6 119:8,9,21 153:4 160:8 197:11 205:14,14 222:10 222:16,18 <b>professionalism</b> 158:2 269:22 <b>professionals</b> 157:1 161:10 202:17 241:8,11 243:7,21 250:19,20 263:9 <b>professor</b> 2:2,18,18 3:5 4:12,14 56:18 60:11,15,19 61:1 61:4,7,8,11,19 84:1 93:4,7 104:6 104:15 277:4 <b>professors</b> 60:12 <b>professorship</b>	104:8 <b>profile</b> 154:12 <b>profit</b> 149:20 152:9 <b>profits</b> 150:11 <b>program</b> 83:13 93:5 140:5 169:13 186:7 <b>programs</b> 37:3 58:4 117:15 <b>progress</b> 39:1 40:22 47:20 64:19 152:18 <b>progression</b> 47:21 <b>project</b> 12:6,12 16:9 17:19 18:1,5 18:6 19:4,10,11 19:18 28:20 35:8 45:19 47:1,3 48:8 70:8 74:20 86:3 89:22 96:4 98:14 99:5 132:19 198:8 266:11 282:15 <b>project-by-project</b> 273:17 <b>projected</b> 270:3 <b>projections</b> 164:7 274:14 <b>projects</b> 29:10 283:19,20 284:1 <b>promise</b> 34:3 129:2 130:2 <b>promote</b> 60:8 <b>prompted</b> 231:17 <b>pronoun</b> 60:13 <b>pronouncements</b> 223:10 <b>proper</b> 119:17 140:6 195:14 210:2 233:15,15 236:5 <b>properly</b> 15:3 140:9 146:9 153:11 270:20 <b>proponent</b> 211:4 <b>proposal</b> 12:17 13:3 69:19 70:22 71:7 72:8,9,17	102:13,18,20 103:7 <b>proposed</b> 57:8 114:18,21 115:4,6 219:7 <b>proprietary</b> 166:17 166:19 180:16 187:14 196:21 249:11 255:7,11 268:1 <b>proprietary</b> 175:18 176:5 <b>propriatorially</b> 154:1 <b>protect</b> 139:5 176:5 <b>protection</b> 175:22 <b>proven</b> 27:15 <b>provide</b> 80:22 85:8 102:22 103:2 131:2,10 132:4 142:10 217:13 227:5 229:3 236:14 239:22 241:11 244:6 246:5,9 250:5,7 253:1,2,9,13,21 262:11 264:6 273:15 275:4 <b>provided</b> 24:3 64:12 65:19 81:19 98:17 184:9 217:12 240:13 242:18 247:13 275:6 <b>provider</b> 252:17,21 253:8,9,19 265:3 <b>providers</b> 160:3 181:6 195:20,20 195:22 196:1,6 <b>provides</b> 92:16 100:18 143:1 259:6 260:7 <b>providing</b> 32:9,12 38:10 59:3 198:15 246:21 253:11 265:1 267:22 279:15	<b>proving</b> 26:3 <b>provision</b> 213:4 <b>provisioning</b> 42:14 <b>provocative</b> 66:5 <b>prudent</b> 100:9 <b>psychology</b> 51:21 <b>public</b> 1:1 2:6,18 2:21 4:16,17,20 10:12 19:21 20:2 20:3 21:15,18,21 43:12 57:8 92:22 94:4 153:22 166:12,16 281:8 <b>publically</b> 162:6 184:20 <b>publication</b> 137:10 <b>published</b> 42:22 115:13 199:22 <b>pull</b> 66:11 193:5 211:17 <b>pulled</b> 195:8 290:14 <b>punch</b> 41:12,12 <b>purchase</b> 212:16 212:17 <b>purge</b> 64:21 <b>purpose</b> 64:9 78:15 92:21 153:15 264:10 <b>purposefully</b> 286:18 <b>purposes</b> 180:6 275:17 <b>pursuing</b> 95:2 103:12 <b>purview</b> 237:10,11 <b>push</b> 138:5 249:14 <b>pushed</b> 163:17 <b>pushing</b> 82:3 124:18 <b>put</b> 17:19 41:4 62:5 72:10 78:8 81:5 99:20 105:7,9 106:17 108:7,12 108:15 111:1 117:4 118:19 137:18 141:22
--	--	---	---	---

144:9 149:19 165:3 167:6 171:4 171:4,6 185:7,11 185:16 199:14 227:1,19 228:9 229:4 231:18 240:22 250:10 252:3 257:5 284:4 <b>puts</b> 163:8 237:15 <b>putting</b> 51:8 108:10 117:8,9 138:1 163:2 165:16 171:9 214:7 217:5 239:1 <b>puzzled</b> 102:6,10 <b>PwC</b> 2:6 202:18	<b>quarterly</b> 244:9 <b>question</b> 6:16,19 7:4,6 22:12 34:8 35:11 52:12 53:16 58:18,20 60:10 61:10 80:19 88:3 101:5 106:20 135:21 159:17 162:16 164:15 178:17 179:18 182:1 183:9 184:17 188:2,12 189:2,12 203:10 210:13 212:7 216:17,19 253:22 254:7 255:8 264:9 271:11,14 274:20 275:14,22 276:16 282:14,16 <b>questioning</b> 169:20 169:21 260:17 <b>questions</b> 10:17 16:16 65:21 75:16 84:17 87:17 105:4 105:6,7 152:6 169:19 175:3 176:13 181:13,15 196:11 208:16 214:4 215:9 220:2 220:5 226:7 266:12 279:2 281:1,19,21 282:9 <b>quick</b> 53:16 78:10 82:10 86:8 220:18 289:18 <b>quickly</b> 42:21 57:14 133:18 175:11 284:11 287:10 <b>quite</b> 15:10 30:9 38:2 43:13 47:18 79:1 100:15 184:11 191:9 199:12 209:5 210:17 215:14 270:22 289:11 <b>quote</b> 158:6 167:2	194:8,20 <b>quoted</b> 229:22 230:1 <b>quotes</b> 162:12 166:17 194:7,9 225:14 226:13 <b>quoting</b> 205:19	<hr/> <b>R</b> <b>R</b> 1:13 2:1,10,12 8:1 238:22 <b>Rachel</b> 3:3 133:14 139:17 <b>raise</b> 10:18 11:21 202:10 241:9 276:20 282:9 <b>raised</b> 10:20 39:15 158:21 220:1,13 226:7 <b>raises</b> 152:5 <b>raising</b> 157:22 158:7 241:17 264:12 <b>Ramamoorti</b> 3:5 41:8 51:15,18 133:13 138:10,11 277:4 281:13 <b>range</b> 24:13,13 38:15 46:6 101:17 101:20 107:12 108:4,11 109:2,3 109:5,20 116:1,1 117:4 127:16,20 127:21,22,22 128:2,4,13 131:20 133:22 142:10 154:7,8 158:2 159:7,12,15 176:18,19 177:6 177:13 178:22 208:1 218:3,7,11 219:2 272:18,19 <b>ranges</b> 22:17 114:18 135:14 274:10,16 <b>rare</b> 148:21 149:1 193:17 <b>rate</b> 25:5 73:19	91:8 177:2 178:7 178:10,16 186:6 213:19 214:17 226:16 227:9 234:7 <b>rated</b> 129:19 <b>rates</b> 31:15,17 78:4 87:4 88:3 110:12 <b>rating</b> 75:13 148:12 187:9 <b>ratings</b> 148:12 <b>ratio</b> 115:6 <b>rattle</b> 40:3 <b>razor-thin</b> 279:18 <b>re-do</b> 90:21 <b>re-focus</b> 37:5 <b>re-measurements</b> 275:2 <b>reach</b> 38:5 283:8 <b>reached</b> 38:7 <b>reaching</b> 195:13 <b>react</b> 57:15 236:22 <b>reaction</b> 78:10 147:7 149:5 174:16 210:8 228:9 289:3 <b>reactions</b> 228:21 <b>read</b> 10:4 13:5 62:17,22 65:17 69:19 70:20 72:21 76:5 98:13 146:9 215:15 280:3 286:22 <b>reader</b> 98:9 <b>readily</b> 224:21 258:18 <b>reading</b> 62:18 63:4 70:22 71:16 204:14 211:16 281:15 <b>reads</b> 163:7 <b>ready</b> 225:21 240:10 270:8 <b>real</b> 28:14 40:22 90:6 93:21 106:3 106:4 134:13 136:1 146:3,3	233:20 268:13 271:6,9 276:16 <b>realistic</b> 130:15 236:19 <b>reality</b> 84:4 97:18 204:9 211:6 286:3 <b>realizability</b> 213:1 <b>realize</b> 175:11 237:9 <b>realized</b> 93:18 246:10 <b>realizing</b> 271:3 <b>really</b> 8:12 9:13,18 9:20 23:10 26:13 28:19 31:20 34:15 36:20 39:2,20 45:12 48:5 50:15 50:18 51:8 61:9 66:15 73:1,17 74:13 75:22 76:7 76:14 77:11,20 78:2 80:9 84:21 88:19 90:2,3 103:10 113:6 119:22 130:4 132:11,14 162:19 164:4,7 170:5 180:18 181:1 190:16,18 193:11 194:11 195:5 196:10 198:11 212:1 214:9 216:6 217:17 218:19 220:1,4,11 223:12 225:21 226:4,20 230:13,19 231:4 238:11 240:12 243:22 247:6 254:2 255:9 256:17 257:16,20 259:21 260:1,6,11 262:16 263:16,20 271:6 275:21 277:22 280:7 284:7 <b>reason</b> 74:13 99:17 100:4,7 115:4,6
---	---	---	--	---	---



123:19 200:11 285:5 <b>reasonable</b> 14:15 24:21 35:20 62:8 65:9 91:6 108:4 116:1 127:16,20 127:21 128:13 131:20 132:4 135:14 206:20 236:4,4 265:9 <b>reasonableness</b> 59:8,18 88:10,11 101:15 122:13,19 124:18,20 218:7 <b>reasonably</b> 109:4 224:21 228:3 246:2,3 268:17 <b>reasons</b> 66:1 93:9 143:17 150:19 153:13 183:8 197:2 249:12 258:9,13 279:14 <b>recalculate</b> 180:12 181:3 <b>recall</b> 68:5 71:16 73:14 238:1 255:12,13 281:15 <b>receipt</b> 171:17 185:8,16 <b>receivable</b> 25:18 81:14 213:3 <b>receivables</b> 59:14 <b>receive</b> 9:2 13:2 132:13 167:7 171:6 182:7 225:4 <b>received</b> 95:2 161:14 171:11 <b>receiving</b> 171:9 175:6 194:21 <b>recipient</b> 38:16 <b>recognition</b> 30:11 43:10 70:4 153:9 153:10 206:14 213:6 216:9 266:3 <b>recognize</b> 136:15 217:2 <b>recognized</b> 74:9	84:4 206:17 208:11 229:2 275:7 <b>recognizing</b> 74:2 262:13 <b>recollect</b> 224:5 <b>recollection</b> 187:22 <b>recommend</b> 115:21 203:3 <b>recommendation</b> 200:5,16,17 203:9 203:15 204:21 205:4 209:11 210:4 211:16 <b>recommendations</b> 100:8 199:19,21 201:16 202:7 <b>recommending</b> 12:7,16 <b>reconcile</b> 269:5 <b>reconsider</b> 65:10 <b>record</b> 141:18,20 189:18 221:17,17 <b>recorded</b> 24:4,20 24:21 26:5 27:14 27:22 54:20 <b>records</b> 54:10,11 255:17 256:1 <b>recourse</b> 285:20 <b>recovers</b> 258:11 <b>recruited</b> 108:19 <b>recur</b> 23:10 <b>recursive</b> 119:14 <b>red</b> 113:10 <b>reduce</b> 127:9 131:18,19 197:14 233:22 <b>reduced</b> 96:1 123:18 128:12 134:9 <b>reduces</b> 119:1 <b>reducing</b> 240:2 <b>REES</b> 3:7 <b>reexamined</b> 60:8 <b>refer</b> 50:10 206:11 240:2 272:11 <b>referee</b> 277:12	<b>reference</b> 44:20 142:21 143:2 163:9 166:10 188:19 189:14 243:2 248:22 <b>references</b> 39:10 <b>referred</b> 50:13 <b>refined</b> 45:3 <b>reflect</b> 17:16 123:11 154:21 168:14 202:20 217:9 241:21 276:3 <b>reflected</b> 224:12 269:6 <b>reflecting</b> 36:7 50:16 <b>reflection</b> 48:16 <b>reflective</b> 252:14 <b>reflects</b> 224:15 <b>reformatted</b> 274:15 <b>refrain</b> 202:16 <b>refresh</b> 49:2 89:21 <b>refreshing</b> 237:3 <b>regard</b> 13:9 49:11 50:2 231:18 256:11 259:3 261:22 <b>regarding</b> 18:18 65:21 99:8 102:11 134:1 135:9,14 268:20 <b>regardless</b> 111:18 114:17 <b>registered</b> 21:15 22:2 <b>Registration</b> 5:4,16 21:13 <b>regular</b> 12:2 21:14 86:14 93:15 <b>regularly</b> 196:11 198:20 234:9 <b>regulate</b> 82:6 84:7 84:8 <b>regulated</b> 262:16 <b>regulation</b> 82:16	82:21 152:6 <b>regulations</b> 57:8 <b>regulators</b> 18:3 21:5,9 41:19 42:9 44:4 57:2 58:10 66:3 73:15 74:3 84:6 147:13 151:19 152:11 156:22 231:18 251:18 <b>regulatory</b> 4:5 48:3 83:15 151:9 155:17 198:17 214:20 262:12,17 262:22 263:5 270:21 285:9 286:5 289:19 <b>reign</b> 60:20 <b>Reilly</b> 3:8 34:4,7 81:21,22 83:7 215:10 236:12 <b>reinforce</b> 37:20 77:3 <b>reinforcing</b> 160:9 <b>reiterate</b> 44:18 <b>relate</b> 113:2,6 199:20 206:6 220:14 261:11 276:11 <b>related</b> 6:8,11 7:15 14:10 17:5 18:14 30:7 56:10 90:11 99:6 104:4,11 105:12 115:3 119:20 123:16,21 124:5,6,7 125:21 125:22 126:20,22 127:2 128:7 199:2 200:4 206:8 258:21 <b>relates</b> 114:2 199:19 201:2 241:18 257:22 262:22 <b>relating</b> 10:13 16:6 18:1,16 262:9 265:3 288:12	<b>relation</b> 262:21 265:22 <b>relationship</b> 48:3 <b>relationships</b> 18:9 99:9,12 <b>relative</b> 38:17 39:13 40:6,9,13 74:17 78:6 134:3 188:11 193:15,16 216:9 280:22 <b>relatively</b> 8:11 77:1 137:15 154:9 177:13 178:3,3,19 246:1 281:16 <b>release</b> 17:12 42:11 94:2 262:5 278:2 <b>released</b> 173:9 <b>relevance</b> 134:15 135:1 237:14 <b>relevant</b> 11:12 43:20 57:20 79:10 100:18 101:11 111:7 125:19 153:18 162:2 223:7 238:15 275:16 <b>reliability</b> 100:20 101:2 264:22 265:2 275:17 <b>reliable</b> 111:8 187:13 244:7,19 244:21 247:14 <b>reliance</b> 124:22 125:19 270:12,13 <b>relied</b> 124:1 276:2 276:3 <b>rely</b> 61:11 79:13,16 84:9 124:8 152:7 244:22 245:19 246:13 247:19 255:18 275:20 <b>relying</b> 28:7 124:7 155:21 255:1 <b>remains</b> 127:11 131:21 132:1 154:22 <b>remarks</b> 7:13,19
--	---	--	---	--

57:14 60:14 78:11 96:6,21 181:5 208:15,18 256:15 256:16 289:12 <b>remeasurement</b> 213:19 <b>remedial</b> 23:11 37:8,21 38:3 48:2 <b>remember</b> 86:21 144:22 148:1 227:19 228:4 237:18 271:1,1 273:16 278:1 <b>remembered</b> 73:4 <b>remembering</b> 118:1 <b>remind</b> 142:1 <b>reminder</b> 205:4 <b>reminds</b> 277:7 <b>reminisce</b> 223:16 <b>remote</b> 98:6 <b>remove</b> 61:3 145:19 <b>rep</b> 86:17 <b>repeat</b> 91:21 <b>repeatedly</b> 121:16 <b>replace</b> 12:8 13:14 13:15,17 <b>replaced</b> 14:18 <b>replacement</b> 183:10 <b>replacing</b> 64:22 <b>report</b> 19:20 38:4 59:13 81:13 85:12 93:10,14 95:3,9 95:13,18 110:4,12 117:9 118:14 121:14 122:22 126:5,16 132:20 132:21 159:3,3 162:8 184:18,20 187:7 218:6 239:1 262:10 272:21 273:7 274:7 275:22 276:3 <b>reported</b> 27:18 64:4 85:14 92:17	93:11,18 110:15 115:4 123:9,16 127:4,5 162:6 210:19 <b>reporting</b> 5:5 7:1 14:10 19:18,20 20:1,17 54:13 55:15,21 56:21 57:1 58:7 66:3 78:17 85:2,3,4 86:1 98:13 132:18 132:19 139:15 142:18 143:19 160:14 186:18 198:5,14 200:2 205:9 211:2,7 215:2 216:21 217:6 218:17 223:6,7 227:1 228:15 229:10 237:12 238:15 239:22 256:4 271:8 272:14 275:15 281:14 285:16 <b>reports</b> 38:17 39:7 39:9 43:7 57:18 95:20 165:18 185:8 <b>repository</b> 163:3 163:16 <b>represent</b> 35:1 70:19 182:3,3 210:21 <b>representationally</b> 275:11 <b>representative</b> 92:9 <b>representatives</b> 21:17 <b>representing</b> 139:4 <b>represents</b> 161:2 161:13,13 182:10 182:13 <b>reproduce</b> 246:3 <b>reputation</b> 84:10 250:2 <b>require</b> 14:11 79:6	80:20 99:11 116:3 116:22 117:6 127:21 128:3 130:8 133:2 229:21 264:14 268:7 280:11 <b>required</b> 28:4 58:21 86:12,13 90:8 117:4,7,18 150:21 156:6 212:9 239:8 246:12 263:20 <b>requirement</b> 77:17 207:1 <b>requirements</b> 13:18,22 15:4,8 33:9 48:21 83:10 133:6 153:5 203:12 263:1 283:16 288:14 <b>requires</b> 14:14 93:9 93:14 117:16 206:18 207:3 237:7 249:4 253:4 260:12 276:12 <b>requiring</b> 213:15 258:8 <b>research</b> 6:11 12:11 87:8 104:2 104:8,16 105:5 111:5 112:4,7 118:4 120:13,22 130:3,5 132:9 135:5 137:8,15,17 193:5 <b>resemble</b> 176:8 <b>reserve</b> 26:1,3,4,9 26:10,11,11,16,18 26:21 27:13 <b>reserves</b> 144:6 209:20,21 213:4 215:22 269:15 271:4 <b>residual</b> 213:10 <b>resolve</b> 65:20 <b>resolved</b> 262:4 289:7	<b>resource</b> 243:8 257:22 289:4 <b>resources</b> 150:16 241:12,14,15 243:7 250:14,16 250:22 251:1 263:8 <b>respect</b> 12:13 23:21 24:17,21 25:22 28:4 29:6 47:9 52:10 55:5 64:10 69:14 74:7 96:17 96:18 101:2 134:14 142:8 180:21 198:4 221:12 256:3 266:13,18 271:15 276:2 284:4 <b>respects</b> 83:11 101:14 <b>respond</b> 11:3 50:5 188:11 232:18 282:13 <b>responded</b> 109:1 114:9 <b>respondents</b> 18:4 <b>responding</b> 95:7 186:6 216:17 <b>response</b> 10:16,17 14:12 35:11 42:18 57:8 111:4 136:22 207:18 257:21 260:17,21 285:8 <b>responses</b> 11:4 14:7 112:13 114:16,20,20 <b>responsibilities</b> 131:14 203:6 253:17 255:13,17 256:18 <b>responsibility</b> 14:9 84:18 122:9,15,18 122:19 202:12,18 202:19 206:4 249:20 250:9,11 255:16,22 265:13 267:18 276:4	<b>responsible</b> 57:7 60:1 83:9 198:15 <b>responsive</b> 59:20 95:14,19 <b>rest</b> 136:14 172:20 <b>restated</b> 51:5 <b>restatement</b> 65:5 <b>result</b> 18:17 19:4 35:2 42:21 52:6 93:19 111:11 122:3,5 144:6 244:4 <b>resultant</b> 259:5 <b>resulted</b> 129:17 <b>resulting</b> 93:20 128:20 155:1 <b>results</b> 21:8 22:11 34:10,14,19 39:3 40:19 44:21 150:6 162:13 166:18 231:16 263:16 <b>retain</b> 122:15,18 200:8 234:1,14 <b>retention</b> 55:4 <b>retirement</b> 2:21 259:1 268:7 <b>retrade</b> 162:10 <b>reveal</b> 154:4 181:14 <b>revenue</b> 30:11 43:10 70:4 213:5 213:6 216:9 266:3 <b>review</b> 29:3 45:21 47:1 167:9 190:12 232:7 251:12 262:19 269:13 272:3 <b>reviewed</b> 167:12 <b>reviewing</b> 174:2 262:1 <b>reviews</b> 171:3 205:15 269:17 <b>revised</b> 19:22 <b>revisions</b> 13:10 <b>RICCIARDI</b> 3:9 <b>RICHARD</b> 1:18 2:19
---	---	--	---	---

<b>Rick</b> 51:15 53:11 53:15 281:11 284:7,9 <b>riddled</b> 277:8 <b>Rifkind</b> 3:10 <b>right</b> 9:22 28:19 36:20 44:5 51:14 76:20 83:21 87:2 88:9 92:4 101:17 106:1 108:16 115:14 120:12 129:22 146:12 147:22 148:6 157:17 158:19 162:22 169:12 180:21 200:9,19 206:1,3 208:20 216:19 242:21 243:14 251:9,9 253:4 254:22 259:19,21 271:19 272:2 273:14 286:15 287:16 290:4 <b>risk</b> 3:8,10,13 5:1 6:20 14:1,5,6,19 14:21 15:1 23:4 33:10,15,16,19,20 34:22 55:18,20 56:3 65:5 71:1 72:19,21 79:15 85:20 99:10,18 102:15 103:1 106:9 119:15,17 120:1,2 123:10,12 123:13,16,17 124:17 134:8,12 134:13 136:21,22 138:18 143:6 148:7 154:12 158:17 190:5 192:7,7,19 196:9 200:8 207:14,17 233:10,12,17 234:7,14 251:17 257:19 259:18 260:7,8,11,18,19	260:22 262:15,16 262:18,20 265:4 272:7 287:18 <b>risk-based</b> 260:5 <b>risks</b> 14:8,9,12,13 15:3,5 19:1 33:8 54:18 56:1 85:7 98:4,10,16 107:2 119:17 123:21 131:16 154:15 191:4 193:16,16 217:14 <b>Robert</b> 2:6,7,7,8 4:15 7:10 104:7 <b>robust</b> 16:11 40:20 72:19 92:15 157:9 204:16 287:18 <b>rock</b> 62:5 <b>role</b> 15:21 40:8 55:6 58:14 64:9 74:8 142:15 157:12 202:15,21 217:21 277:11 278:12 279:20 <b>roles</b> 202:15 222:11 <b>roll</b> 42:14 169:8 171:18 182:15 <b>rolled</b> 162:22 163:1 <b>Rolls</b> 95:13 <b>room</b> 106:17 146:21 175:13 195:13 238:18 <b>root</b> 28:15 36:20 39:17,22,22 40:8 44:15,17 45:16 53:17 71:10,22 74:7 76:1 120:17 158:11 <b>rooted</b> 51:4 <b>roots</b> 65:6 <b>round</b> 161:15 168:10 <b>rounding</b> 57:4 <b>roundtable</b> 156:21 <b>Royce</b> 95:13 <b>rule</b> 60:4 62:2 277:12 279:11	<b>rules</b> 57:8 59:16,20 61:1,6,13 62:12 68:21 70:11 144:2 144:12 212:15 219:4 236:15 256:17 <b>run</b> 164:6 177:1,1 178:13 179:3 194:19 248:15 <b>running</b> 133:12,17 141:9 178:6 233:16 <b>runs</b> 157:5 283:11 <b>Rupert</b> 145:19 <b>Ryan</b> 93:3,7 238:9 <hr/> <b>S</b> <b>S</b> 2:3,17 4:13 8:1 <b>S-X</b> 82:16,21 <b>safe</b> 227:6 <b>safely</b> 208:5 <b>SAG</b> 8:11,13 9:12 10:7 11:10,19 12:2,3 16:22 19:19 28:17 34:15 56:6,17 57:5 97:2 103:20 133:21 141:6 198:20 221:12 222:8,18 289:16 290:9 <b>sale</b> 176:2 225:5,5 226:10 <b>sales</b> 147:2 234:10 <b>salvaged</b> 213:10 <b>sample</b> 114:15 <b>Sandra</b> 5:5 6:9 56:20 88:13 90:9 94:19 98:1 103:5 117:11 118:1 138:16 <b>Sandra's</b> 84:22 113:19 <b>Sandy</b> 56:21 66:6 76:18 81:22 86:4 197:7 <b>Sandy's</b> 78:11 <b>Santarelli</b> 3:10 100:11,14	<b>Sarkozy</b> 147:18 <b>satisfaction</b> 115:7 <b>satisfies</b> 281:2 <b>satisfy</b> 188:15 281:8 <b>save</b> 151:10 258:6 <b>saved</b> 149:22 <b>saw</b> 109:13 274:10 <b>saying</b> 38:19 50:16 57:21 68:6 77:2 80:14 90:14,15 140:10 218:20 219:3 228:4 275:19 278:9 279:2 <b>says</b> 53:1 59:22 67:18 117:3 156:10 225:3 228:2 <b>scale</b> 83:14 277:14 <b>SCATES</b> 5:17 <b>scatter</b> 148:11 <b>scenarios</b> 164:6 178:7 <b>schedule</b> 141:13 <b>scheduled</b> 286:20 <b>Schilder</b> 4:6 16:19 16:20 <b>Scholes</b> 110:19 <b>school</b> 2:3,8 3:5 4:15 56:18 93:6 207:10 222:3 279:12 <b>schools</b> 279:10 <b>Schuetze</b> 62:19 65:14 <b>Schwab</b> 110:17 <b>science</b> 217:4 <b>scope</b> 64:2 154:22 236:10 280:22 281:9 <b>Scotland</b> 142:16 <b>screens</b> 274:11 <b>screwy</b> 279:11 <b>scrutiny</b> 151:9 <b>se</b> 68:10 101:16 <b>search</b> 224:9	<b>searches</b> 163:10 <b>searching</b> 137:22 <b>seating</b> 10:8 <b>SEC</b> 59:9 62:21 63:19 82:14,18,20 83:14 96:8 101:6 145:1 149:6 195:14,18 203:4 238:6 255:14,15 278:2 <b>second</b> 15:4 18:13 42:22 59:12 65:5 65:8 94:17 97:21 130:14 193:7 200:16 214:21 232:6 266:15 269:12 285:2 <b>secondarily</b> 196:8 <b>secondary</b> 196:12 <b>Secondly</b> 152:21 <b>section</b> 61:16 62:2 239:2 273:20 <b>sector</b> 164:22 <b>sectors</b> 165:8 <b>securities</b> 4:2 13:20 23:22 24:2,11 25:11 43:18 60:6 94:8 143:4 161:5 161:7,11 162:1,14 162:16,16 164:8 164:12,13,16 171:7 172:1,2,4 172:11,16,17 173:3,5,9,11 177:3,11 178:8,9 178:10,11,14 180:3,5,18 182:17 185:19 186:6,12 187:2,4 188:8,14 189:2,15 225:9 226:19 229:4 234:2 238:21 244:11 245:9,10 246:10,15 258:19 <b>securitization</b> 110:13,13,14 222:13 234:13
---	---	---	---	---

<b>security</b> 164:20	268:5,13,14	205:16 238:10,21	247:11 254:9	170:1 191:14
166:22 172:22	269:14,20 270:5	<b>senior-level</b> 137:2	258:1 264:17,18	223:12 249:11
173:18 174:15,15	270:20 276:15	137:2	<b>servicing</b> 253:4	274:18
176:21 178:15,17	279:15 283:22	<b>seniors</b> 115:16	<b>serving</b> 120:20	<b>shared</b> 203:5
188:21 189:1,10	<b>seeing</b> 30:13,14,16	<b>sense</b> 27:5 80:10	222:5	<b>shareholders</b>
189:13 193:22	30:21 34:15 42:9	87:22 158:18	<b>session</b> 6:16,19 7:4	217:13,18
197:4	44:4 45:13 174:19	179:12 183:14	7:6 286:20	<b>sharing</b> 58:9
<b>security's</b> 178:19	174:22 175:2	211:17 225:7	<b>set</b> 9:17 15:4 27:19	285:21
<b>security=s</b> 178:16	182:14 197:21	283:21	56:14 96:16 133:1	<b>sheet</b> 108:7 144:9
<b>see</b> 16:18 19:8	289:16	<b>sensitive</b> 135:1	144:12 147:12	245:5
20:20 22:21 23:13	<b>seek</b> 288:10	210:10	152:20 154:19	<b>sheets</b> 101:18 144:3
24:4 28:5,18 30:9	<b>seeking</b> 217:1	<b>sensitivity</b> 178:10	156:6 157:7 202:1	145:17 152:9
30:9,10 31:8,11	<b>seeks</b> 16:1	178:14,16	202:10 204:14	<b>shift</b> 59:21 63:13
31:15 32:22 35:7	<b>seen</b> 23:9 24:1,10	<b>sent</b> 162:11	207:3,13 230:18	<b>shift's</b> 71:8
38:16,22 39:2	25:6,6,7,20,21,21	<b>sentiment</b> 219:15	244:16 254:3	<b>shifted</b> 59:18
40:2,18 41:7 52:6	26:1,13 27:8,16	<b>separate</b> 232:1,7	284:20 287:16	<b>shifts</b> 229:12
54:14 55:2,3	29:8 31:6 32:6,10	266:11 269:13	288:18	<b>Shipper</b> 238:9
57:17 65:2 70:5	34:10 38:2 39:8	275:2	<b>sets</b> 14:16 15:7	<b>shocked</b> 73:18
71:14 75:9 78:15	41:15 46:21 82:4	<b>separated</b> 283:15	<b>setter</b> 156:10	<b>shoes</b> 199:14
81:15 82:19 83:1	85:18 178:17	<b>sequencing</b> 28:20	202:15	<b>shoot</b> 34:7
84:12 91:11 105:8	195:8,22 241:22	45:20	<b>setters</b> 101:6 215:1	<b>shopping</b> 158:17
105:14,21 107:22	<b>selected</b> 24:14	<b>series</b> 107:22	217:21 239:16	<b>short</b> 41:1,10 48:1
108:14,17 109:6	156:15 218:14	199:18	273:18 274:22	54:15
110:3,10 112:13	<b>selective</b> 52:5	<b>serious</b> 147:22	<b>setting</b> 9:1,22 10:22	<b>short-term</b> 230:15
113:1 119:20	<b>self</b> 77:22 118:14	<b>seriously</b> 36:15	13:7 57:19 97:9	<b>show</b> 52:3 110:17
120:5 129:2 134:1	<b>self-constructed</b>	<b>serve</b> 86:19 96:11	102:2 115:17	150:21 155:6
135:5 136:15	221:3	290:3	118:9 133:11	156:2 179:4 192:2
139:21 140:17	<b>self-reported</b>	<b>served</b> 61:13 98:17	153:4 158:12,13	<b>showed</b> 151:5
143:16 157:16	114:21	142:16 199:1,3	158:15 188:4,10	<b>showing</b> 151:11
165:18 166:13,13	<b>sell</b> 166:15 182:7	222:11	189:18 198:16	155:8 169:9
166:14,15,18	196:18 234:3,8,12	<b>serves</b> 21:20 22:5	199:15 213:13	<b>shown</b> 37:8 111:5
167:2 168:2 169:2	258:13	56:22 57:5	215:4 216:20	112:4 193:21
170:19 171:16,18	<b>sellers</b> 183:18	<b>service</b> 24:3,8,12	219:13 220:6	<b>shows</b> 71:8 128:6
173:6,18 174:8,9	<b>selling</b> 3:11 5:6 6:8	148:2 160:3 177:4	223:17 227:11	136:20 150:8
176:17 177:3,5,15	56:15 57:11 63:6	183:5 184:13,19	235:1 236:7,16	275:1
177:19,22 178:9	78:10 80:19 82:10	185:7 187:6	273:12 284:5	<b>shrinking</b> 196:22
179:2,7,19 180:6	83:19 133:13,16	242:19 247:13	<b>settings</b> 115:19	<b>shut</b> 150:3
183:4 189:2	181:11,12 183:8	253:10 257:10	<b>settle</b> 195:17	<b>side</b> 68:8 166:5,6
190:18,20 198:1	184:3 196:20	265:3	<b>severities</b> 189:9	170:7 185:17
208:1 211:19	220:8,9 225:4	<b>services</b> 4:10 6:17	<b>severity</b> 285:3	196:3,18,18
224:12 232:8	<b>Selling's</b> 96:5 100:8	17:17 24:12 65:11	<b>Shakespeare</b>	240:21 258:13
235:6 248:10,12	<b>send</b> 243:20	80:10 142:22	110:11	270:16 280:6
248:15,16,16,17	<b>sending</b> 202:3	143:2,2 180:10,22	<b>Shanghai</b> 151:13	<b>sides</b> 282:1
249:3,8,9 250:12	<b>senior</b> 1:20 2:16	187:22 216:8	<b>shape</b> 194:17	<b>sideways</b> 44:2
254:1 261:9,16	4:20 5:1 6:20	222:13 224:3	<b>share</b> 20:14 50:22	<b>sight</b> 100:17
264:8,8,11 266:7	22:1 108:18	235:13 243:13	59:4 62:16 65:4	<b>sign</b> 86:17 154:3
266:21 267:6	136:11 143:6	244:1 245:1,11	70:21 99:5 128:8	<b>signal</b> 202:4

<b>significance</b> 18:11 97:10 134:1,3,16	218:5 235:9 259:9 274:19 287:8	193:13	172:17	263:19 264:3
<b>significant</b> 14:13 15:15 19:1 22:16	288:17 289:3	<b>slides</b> 105:9 135:22	<b>sophisticated</b> 163:10 176:7	267:17,19 271:16
23:11 27:10 28:10	<b>Sir</b> 3:13 5:9 6:15	191:2	178:21	275:20,20 281:17
33:8,10,15,15,16	142:13 143:12	<b>small</b> 67:14 120:21	<b>sorry</b> 235:8	281:20 282:5,6,16
33:18 37:8 47:10	157:15,20 160:11	151:22 154:9	<b>sort</b> 45:16,18 47:2	283:16,17,18,21
71:9 92:11 94:18	160:18 223:15	229:17 281:16,16	48:11 66:11 67:16	<b>specialist's</b> 126:21
95:10,22 99:8	<b>sit</b> 66:22 67:10 90:2	282:3,3	70:15 72:9 73:13	281:21
112:16 130:9	90:9 168:1	<b>smaller</b> 113:10	74:1 112:4 122:4	<b>specialists</b> 15:22
154:10 200:19	<b>sits</b> 74:16	117:7 229:18	145:12 150:8	31:6 67:2,5,8
205:18 207:9	<b>sitting</b> 60:11 67:12	257:18 258:1	157:7 161:14	87:16 106:9 118:7
208:7 221:5	73:14 270:18	259:2 261:4,18	240:14 241:19	118:10 124:7,8,9
250:16 252:2	<b>situation</b> 26:13	263:11,21,22	242:4,19 244:16	125:22 126:1,5,8
258:10 264:3,6	107:15 127:4,7,12	265:1,21 272:2	283:5,11	126:9,16 127:14
266:13 267:1	262:8	282:6 283:3	<b>sorts</b> 73:6 91:8	130:19 131:10,11
272:18,19 276:14	<b>situational</b> 104:18	<b>smarter</b> 55:14	<b>sound</b> 39:19 208:12	184:10,11,12
276:15 285:8	<b>situations</b> 27:16	175:5,6	<b>sounds</b> 35:21 60:21	235:14 241:5
<b>significantly</b> 154:14 285:6	49:6 128:11	<b>smelled</b> 146:21	77:2 137:8 183:9	242:7,11 243:22
<b>signing</b> 152:19	132:16,20 159:14	<b>Smirnoff</b> 144:2,9	<b>source</b> 264:21	248:16 249:10
<b>signs</b> 151:18	224:16 236:14,19	<b>Smith</b> 4:7 5:8 7:5	<b>sources</b> 12:15 16:1	250:5 251:7,13,15
<b>silence</b> 8:4 148:15	<b>six</b> 74:21 75:3	198:19 211:10,11	19:3,12 78:13	252:3,22 255:18
<b>silent</b> 49:17 126:9	94:15 151:9	276:10	79:4 179:22	257:22 261:21
<b>silly</b> 137:9	<b>size</b> 166:15 194:18	<b>so-called</b> 17:12	180:11,14,17	263:12,17,18
<b>siloed</b> 82:19	257:6 283:12,12	158:3 184:19	263:17	264:11,13 265:7
<b>silver</b> 158:14	284:15	<b>societally</b> 274:17	<b>sourcing</b> 80:11	266:10,11,13,16
211:22 219:14	<b>sizes</b> 259:2	<b>Society</b> 2:10 65:14	<b>South</b> 4:13 104:7	266:19,21 267:2,3
285:12,13	<b>skeptical</b> 119:11,11	<b>software</b> 163:7	<b>space</b> 85:14 160:13	267:14,19 268:3,5
<b>similar</b> 29:9 54:5	194:20	<b>sole</b> 237:10	<b>space</b> 85:14 160:13	268:10,15,17,18
82:11,13,21 95:18	<b>skepticism</b> 18:20	<b>solicits</b> 10:12	<b>speak</b> 29:21 60:22	268:20 269:1,2
149:18 162:1	27:6 28:3 30:21	<b>solid</b> 139:13	161:6 162:4	271:12,13,15
164:9,14 173:4	32:18 37:1 45:19	<b>solution</b> 46:8 286:7	167:17,21 193:14	272:3,4,6 282:19
181:15 187:2	49:19,20 50:9	<b>solutions</b> 46:3 66:1	217:7 257:19	283:3,4,7 284:5
236:11	51:7 52:13 80:4	66:2 120:5 237:16	269:13 270:4,11	289:6,20 290:1,4
<b>similarities</b> 181:7	92:4 97:15 119:7	237:16	<b>speaking</b> 159:5	<b>specialized</b> 269:11
<b>similarly</b> 283:4	119:8,9,10 129:1	<b>solve</b> 39:20 58:2	167:14 175:12	<b>specialty</b> 140:3
<b>simple</b> 201:9	160:8 287:15	125:16 155:12	257:14	<b>specific</b> 10:16
<b>simpler</b> 262:2	<b>skepticisms</b> 119:21	217:21,22 268:2	<b>special</b> 8:8 17:13	12:17 15:4,8
<b>simply</b> 117:20	<b>skewed</b> 82:8	<b>solving</b> 75:21 273:7	72:14	22:22 24:6 25:8
145:21 155:18	<b>skill</b> 133:1 287:16	<b>somebody</b> 81:4	<b>specialist</b> 25:9 28:6	33:8 39:9,10
193:1 194:6 200:5	<b>skills</b> 117:21 133:3	117:22 204:12	28:7,8 31:10,12	47:15,15,22 58:19
<b>sincere</b> 20:6	136:16 205:5	231:21 233:3	31:20 77:19,20	64:13 83:10
<b>single</b> 13:14 39:11	207:13	235:16 251:1	122:11,12,12	123:21 126:6
96:16 127:14	<b>sleeves</b> 169:8	253:1,3 270:6	124:19 130:17	135:9 164:22
200:7 202:1,10	<b>slide</b> 62:18 63:20	271:17 276:2	248:21 249:17,21	192:7,8 193:16
211:4 215:16,20	63:20 76:21 85:1	<b>somewhat</b> 96:12	249:22 250:1	203:15 206:16
	108:14 109:17	141:13 243:9	252:16,20 253:7	207:19 208:7
	129:5 141:22	253:10 261:11	253:18 255:1,4	236:14,22 273:18
		<b>soon</b> 42:16 115:13	256:8 261:6	288:14

<b>specifically</b> 13:22 14:19 15:21 32:19 47:8 96:13 99:11 123:8 180:8 206:18 222:1 265:3 286:21 288:20	146:20 147:5 <b>staff</b> 5:12 7:14 9:8 9:9,15 10:10 12:10,18,22 13:12 13:13 15:7,11,20 19:10 21:2 38:11 41:14 48:7 77:9 102:20 103:3,7 118:15 136:11,12 140:7 142:3 161:4 173:21 179:19 180:7 199:8 200:7 201:17 203:4,11 203:14 211:14 216:3 219:19 220:3 255:15 256:2 284:4,12 288:10 290:13	213:13 214:7,18 215:16 216:1 219:7,13,17 220:6 221:11,13 223:17 223:20 224:13,14 225:2 227:11 229:12 231:2,2 235:1 236:7,13,16 239:16 246:2 254:16 259:9,13 259:13,17 260:12 260:19 263:19 273:12,18 274:22 277:21 279:22 284:5 287:8,12,13 287:22 288:13,17 289:3	102:15,18 103:1,7 121:11 122:22 125:22 127:21 128:3 130:22 131:2,9,18,19 133:1,10 142:14 142:18 143:17 145:19 146:5,7 149:15 152:15,17 152:20 153:4 154:19 155:10,11 155:20 157:9 158:18 181:17 198:7,13 199:15 200:8 202:10 214:16 215:1,4 216:13,19,21 217:10,21 218:9 223:1 228:16,17 229:11 230:17,17 235:4,7 237:7,15 238:17 239:3 259:18,19 266:18 280:7,8 283:15	41:11 82:17,20 96:15 116:14 136:19 137:8 162:8 171:4 237:1 <b>state</b> 3:6 65:14 83:12 256:1 <b>stated</b> 109:8,11 151:13 <b>statement</b> 53:2,3 58:22 60:2 77:11 89:2,3 94:4,6,10 94:15 108:7 111:7 128:15 147:15 270:9 279:16 <b>statements</b> 9:18 22:20 27:14 28:11 49:8 52:19,22 56:14 63:22 64:21 68:12 69:8 70:1 73:21 75:9 85:7 85:11 88:18 91:12 98:7,22 103:11 112:1 135:7 156:19 202:13,18 202:19 210:19 217:2 218:5 231:15 237:20 239:7 269:6 274:21 275:9 276:1 278:17 279:15
<b>speaking</b> 65:13 255:12,14 256:14 <b>speed</b> 284:15 <b>spell</b> 50:19 <b>spend</b> 20:15 158:2 159:5 168:17 169:7 193:15,19 194:13 241:14 242:16,17 289:11 <b>spending</b> 165:15 168:5,18 169:3 <b>spent</b> 147:19 166:8 212:11 223:20 230:10 <b>sphere</b> 146:2 <b>spirit</b> 199:13 <b>spite</b> 23:11 26:9 <b>spoke</b> 28:16 <b>spoken</b> 176:19 <b>spokesperson</b> 56:22 <b>Sponsoring</b> 2:9 <b>spot</b> 211:19 <b>spotlight</b> 285:1 <b>spotted</b> 232:6 <b>spread</b> 144:18 149:12 179:5 <b>spreadsheets</b> 170:22 171:13,13 <b>spring</b> 173:10 <b>Sri</b> 41:8 51:15 133:13 138:10 139:17 281:11,17 <b>Sridhar</b> 3:5 277:4 <b>SSAE</b> 169:13 185:4 <b>Stability</b> 42:4	<b>staff's</b> 288:16 <b>stage</b> 13:8 57:19 183:17 199:9 <b>staged</b> 89:17 <b>stand</b> 28:19 <b>standard</b> 2:13 8:22 9:4,22 10:22 11:17 13:3,14,18 13:21 14:2,5,22 16:13 29:17 32:15 34:21 35:5 38:10 47:15,16 48:5,13 48:18,19 49:1,10 50:2 55:18 56:4 61:18 71:19,21 72:13,21 73:3 76:17 83:14 84:20 86:2 99:6 101:6 102:2,14 103:4 125:18 133:7 140:12 144:5 146:6,8 149:4 156:9 158:12,13 158:15,17 160:9 179:21 188:3,10 189:18 198:3,16 199:21 200:7 202:15 203:2 207:8 209:7	<b>standard-setter</b> 32:9 <b>standard-setters</b> 29:18 57:1 <b>standard-setting</b> 11:2 12:17 35:13 37:14 101:22 105:19 130:6 132:10 <b>standards</b> 1:17,19 3:14 4:6,7,8,11 5:8,9 6:15 7:3,5 8:6 12:8 13:10,15 13:20 14:2,6,18 14:19,20,21 15:2 15:19 20:1 22:3 28:4 30:10 31:1 32:4 34:13,18,18 34:22 35:22 36:17 39:1,10,13,19 40:6,21 42:13 46:16 48:22 49:3 50:12 51:4,9 52:16 55:17,18 57:9 58:3,4,6 61:22 64:14 66:14 70:14 74:17 76:3 77:3,4,5,11 90:8 90:19 96:2,18 97:9 99:8,10	<b>Standing</b> 1:3,9,10 1:16 8:9,21 <b>standpoint</b> 212:3 <b>Stanford</b> 2:19 <b>Stanley</b> 231:12 <b>Star</b> 278:13,14 279:20 280:9 <b>start</b> 17:20 38:10 39:4,17,21 40:19 41:12 48:17 56:7 57:10,18 63:21 66:7,9 75:7 104:22 113:18 130:4 136:15 173:11 190:13 191:20,20 192:3 <b>started</b> 8:4 57:17 86:21 102:5 120:22 121:8 151:11 240:12 243:12 247:3 278:3 284:19 <b>starting</b> 9:3 39:2	279:15 <b>States</b> 95:16 144:19 145:2,8,9 149:1 <b>statistical</b> 134:22 <b>statistics</b> 108:17 116:7 117:17 <b>stay</b> 124:8 172:15 172:20 <b>staying</b> 260:5 <b>Stearns</b> 196:19 <b>step</b> 71:3 72:17 74:1 149:7 158:19 179:9 214:4 286:7 289:21 <b>step-by-step</b> 125:3 131:1 <b>Stephen</b> 93:3

<b>stepped</b> 242:22 <b>stepping</b> 73:7,13 80:9 122:7 <b>Stern</b> 93:6 <b>Steve</b> 78:9,19 209:8 210:5 237:18 272:10 <b>STEVEN</b> 1:15,19 <b>Stewardship</b> 2:13 <b>stipulate</b> 154:20 <b>stock</b> 110:21 111:16,17 134:17 143:8 212:16 <b>stock-based</b> 259:1 <b>stood</b> 139:6 <b>stop</b> 20:10 169:12 183:2 197:18 226:13 <b>stopped</b> 230:11 <b>story</b> 62:19,22 63:10 <b>straightforward</b> 63:10 <b>strains</b> 229:7 <b>strategies</b> 52:11 <b>strategy</b> 233:13 <b>stream</b> 120:21 <b>street</b> 162:12 <b>strength</b> 158:8 <b>strengths</b> 55:7 156:13 <b>stress</b> 191:18,22 192:4 227:16 <b>stresses</b> 229:7 <b>strictly</b> 54:6 81:3 <b>strike</b> 100:8 <b>strong</b> 54:16 96:4 202:4 <b>strongly</b> 10:14 200:6 201:16 286:4 <b>struck</b> 69:19 <b>structure</b> 11:19 197:4 <b>structured</b> 11:8 13:22 162:7 165:1 173:9 178:8,10	182:17 226:1 <b>struggle</b> 24:1 252:19 <b>struggling</b> 30:18 36:20 <b>stuck</b> 282:7 <b>student</b> 60:17 61:3 <b>students</b> 60:15,21 61:8,9,11,12,15 61:19 135:5 138:21 <b>studies</b> 17:20 109:22 110:4,6,8 111:16 113:16 120:18 129:4 137:1 236:16 <b>study</b> 43:4 88:14,15 108:14 112:9 113:14 114:15 115:3,11 129:8 130:2 <b>studying</b> 60:18 <b>stuff</b> 231:14 <b>stuffing</b> 213:5 <b>stumbled</b> 23:1 <b>style</b> 191:19 <b>subject</b> 17:1 23:7 262:18 <b>subjective</b> 107:8,19 116:4,5 123:21 224:11 232:21 239:19 <b>subjectively</b> 62:7 <b>subjectivity</b> 112:17 115:15,17,20 245:13 <b>submit</b> 10:15 189:17 <b>submitting</b> 189:20 <b>subprime</b> 195:16 <b>subscribe</b> 253:11 <b>subsequent</b> 107:4 123:4 131:5 262:1 262:4,11 <b>substantial</b> 64:19 <b>substantially</b> 184:7 <b>substantive</b> 15:9,10	15:12,18 71:2,3 75:5 123:18 200:9 <b>subtraction</b> 72:9 <b>success</b> 87:11 186:2 <b>sudden</b> 225:16 <b>suddenly</b> 149:2 <b>sufficiency</b> 126:20 <b>sufficient</b> 14:14 75:18 76:1 98:9 128:14 154:8 231:5 265:14 <b>sufficiently</b> 35:17 128:13 226:12 265:16 <b>suggested</b> 96:14 274:7 <b>suggesting</b> 111:8 <b>suggestion</b> 83:7 281:4 289:19 <b>suggestions</b> 83:8 234:21 <b>suggests</b> 130:6,9 134:6 <b>suitable</b> 58:7 <b>sum</b> 145:9 <b>summarize</b> 16:9 41:4 42:21 62:2 285:22 287:2,3 <b>summarized</b> 48:12 277:3 287:6 <b>summarizing</b> 45:11 <b>summary</b> 277:2 280:5,6 <b>summer</b> 74:20 199:22 <b>sun</b> 188:6 <b>supervised</b> 118:16 <b>supervision</b> 29:3 45:21 47:1 155:17 251:11 <b>supervisors</b> 18:9 <b>supplement</b> 123:3 <b>supplemented</b> 80:3 254:13 <b>supplements</b> 216:7 <b>supply</b> 228:15 <b>support</b> 27:17 29:3	37:13 52:18,19 95:1 97:5 170:15 183:6 184:1 218:20 219:3,12 259:8 279:12 280:1 287:11,12 <b>supportable</b> 206:20 <b>supported</b> 54:20 68:15,20 88:11,11 277:16 <b>supporter</b> 68:18 <b>supporters</b> 96:4 <b>supporting</b> 208:18 279:21 283:7 <b>supportive</b> 27:22 48:18 158:13 <b>supports</b> 31:4 35:16 36:2 75:13 <b>supposed</b> 75:8 278:17 <b>sure</b> 9:21 11:22 12:3 31:3,13 35:13 36:12 82:6 88:6 89:9 140:7 157:18 159:10 168:14 174:13 181:15 187:3 199:22 204:9 209:21 210:7 215:5 224:14 235:2 236:20 241:17 246:13 247:15 251:8,13 252:12 281:7,10 290:4 <b>surprising</b> 124:3 <b>surrounded</b> 107:17 <b>surrounding</b> 191:13 <b>survey</b> 22:7 41:20 42:3,19,22,22 43:11,22,22 44:9 44:19 45:2 71:13 95:7 127:1 <b>surveys</b> 21:8 121:4 <b>survive</b> 280:5 <b>survived</b> 280:4	<b>suspected</b> 210:5 <b>suspend</b> 94:9 <b>suspending</b> 94:12 <b>Swaine</b> 3:15 <b>swaths</b> 225:9 <b>switch</b> 148:22 <b>syllabus</b> 61:6 <b>sympathetic</b> 133:16 <b>sympathize</b> 157:10 157:12 <b>system</b> 61:5,14,20 62:14 78:17 147:1 150:16,17 176:8 223:6 227:17 228:15,22 229:10 229:13 237:12 271:5 274:5 <b>systematic</b> 279:4 <b>systematically</b> 233:22 273:10 <b>systemic</b> 229:1 274:17 <b>systems</b> 161:20 162:20 163:1 164:4,18 165:13 173:22 207:20,21
<b>T</b>				
<b>T</b> 1:21 3:1 <b>table</b> 6:1 10:9 11:6 114:2 141:14 201:20 204:19 210:11 218:1 251:4 267:14,14 268:4 276:16 285:18 287:16 290:11 <b>tailored</b> 226:3 <b>take</b> 8:3 11:5 18:14 24:2 41:6 51:11 59:12 60:17 62:17 65:6 76:7 87:2 90:2 97:13,16 102:20 122:21 133:14 147:8 148:9 155:18 164:13 172:21				

174:11,14 187:17 191:11 192:19 194:16 208:16 210:7 215:19 219:17 221:14 226:16 229:7 231:9 236:16 241:7 251:1 255:22 276:4 277:13 <b>take-aways</b> 223:13 227:12 <b>takeaway</b> 138:15 <b>taken</b> 37:8 50:12 91:11,12,14 146:16 167:11 <b>takes</b> 219:16 235:5 <b>talk</b> 9:3 20:5 40:3 40:13 68:13 72:7 82:18 85:1 90:10 106:5,13,13 107:8 113:16 115:2 117:10 119:6 120:3,4 129:7 143:15 151:1 189:8 190:10 192:1,17 221:21 229:14,17,20 232:16 242:8 257:21 268:20 286:20 <b>talked</b> 28:16 30:3,6 30:22 32:20 55:16 64:1 72:1 80:15 130:5 216:10 221:20 235:12 238:14 248:1,3 266:2,10 271:14 272:13 273:1,1,2 289:21 <b>talking</b> 20:16 42:12 44:10 45:17 46:20 73:16 85:6 87:8,9 89:22 113:18 127:7 137:7 139:16 140:20 151:22 180:4	189:6 191:20 241:14 242:16 277:15 281:6 <b>talks</b> 119:8,14 137:13 252:18 <b>tangible</b> 47:4 282:22 <b>TARASZKIEWI...</b> 5:19 <b>target</b> 213:17 285:13 <b>task</b> 12:15 17:15 129:17 139:4 147:12 157:8 166:3 180:1 193:12 201:9 204:11 <b>taskforce</b> 187:22 188:13 199:4 <b>tasks</b> 136:11 <b>taught</b> 136:2 <b>tax</b> 209:20 213:2 <b>taxonomy</b> 40:15 <b>teach</b> 186:4 <b>team</b> 28:21 31:10 31:20 32:11 36:7 37:11 44:10 47:5 47:9 50:7 67:2 122:15,17 126:2,3 140:2 195:15 198:15 208:18,20 246:12 270:12 271:21 272:1 289:10 <b>teams</b> 30:17 32:1 33:1 191:8 243:20 246:5 254:10 283:8 <b>technical</b> 87:10 117:21 143:22 199:1 265:14 <b>technically</b> 286:21 <b>technique</b> 144:12 <b>techniques</b> 134:22 145:15 148:7 <b>Technologies</b> 3:12 5:7 56:16	<b>technology</b> 3:4 170:13 171:19 <b>teed</b> 276:17 <b>tell</b> 44:1,20 75:1 76:13 82:14 86:15 87:15,16 100:2 156:11 273:16 <b>telling</b> 62:19 104:22 <b>tells</b> 23:18 <b>templates</b> 37:16 <b>temporary</b> 213:2 220:21 <b>ten</b> 17:2 22:13 49:1 212:11,11 230:8 238:1 277:7 <b>tend</b> 23:5 52:17 245:1 253:13 254:20 283:2,3 <b>tendency</b> 52:1,4,7 55:9 <b>tends</b> 25:12 <b>tension</b> 150:9 230:18 237:13 <b>tent</b> 11:21 51:11 <b>tentative</b> 215:16 <b>term</b> 41:1 48:1 80:4 106:15 196:17 216:13 230:19 <b>termed</b> 287:14 <b>terminology</b> 106:12 <b>terms</b> 23:13,17 29:16 34:17 35:10 36:4 37:13 46:21 48:12 52:16 63:6 83:15 89:8 97:8 97:15 102:20 110:2,3,5,8,10,20 133:9 160:2,3,22 161:12 167:6 176:15 177:16 178:3 179:10 184:22 187:9 188:17 192:8 213:13,18 215:2 221:11 258:18,22	260:7,17,21 262:1 262:7,13 263:15 264:13 265:6 268:22 269:5 272:12 282:4 283:14 290:1 <b>terribly</b> 103:12 199:10 <b>test</b> 26:6,8,18,19 86:13 169:10 246:3,19 254:20 255:3,9 264:4,21 <b>tested</b> 167:12 169:16 176:12 177:17 <b>testing</b> 15:13 23:8 24:1 25:22 26:2 26:21 27:2 28:12 43:19 94:21 97:16 118:14,22 123:18 123:18 167:7 174:18 175:2 177:16,22 200:9 203:12 209:2 246:9,14 254:13 255:2 261:2,11 262:19 264:5 <b>tests</b> 15:9 78:6 151:18 169:10 185:16 <b>thank</b> 16:20 20:10 20:19 22:10 45:6 48:4,15 56:6 57:11 66:4 78:20 84:1 90:7 92:7 96:21 97:4 98:22 99:22 100:9,14 102:2,4 103:18 104:21 138:11 141:15 143:14 160:15,18,20 187:19 189:21,21 199:6 209:9,9 210:13 215:10 221:8 256:21,21 266:5,9 284:10 286:15 289:10,12	290:6,7,9,13,17 <b>thanks</b> 20:6,11 30:2 36:6 38:9 41:2,9 45:4 53:10 53:15 54:3 56:6 66:5 76:18 78:19 81:22 84:21 85:21 89:13,16 97:1 99:1 100:10 102:3 103:19,19 120:6,9 132:6,7 133:16 135:19,20 138:10 139:17 141:4,7 157:14,15 160:16 175:8 184:3,4 187:19 189:18 190:1 197:19,21 198:17 199:7 208:17 211:11 215:9 216:15 218:19 219:10 220:7 221:8,12,15 222:13 223:3,3 240:3,4,5 280:15 280:16 284:2,11 286:8 <b>THELEN</b> 3:12 <b>theme</b> 50:17 <b>themes</b> 45:8 240:13 240:15 241:20 242:5 284:20 <b>theory</b> 134:6 <b>they'd</b> 38:22 88:7 250:20 <b>thing</b> 36:11,13 40:15 52:9 76:19 88:8,12 91:3 112:6 138:3 149:22 150:8 158:9 181:5 190:17 192:17 220:9 227:10 233:19 234:13 252:15 267:12 <b>things</b> 9:3 23:5 28:13,19 29:9,15 32:14 35:14 38:1
---	---	---	---	---



38:2,14 40:20	57:19,20 58:12	223:5,19 227:13	275:1 279:18	200:18 223:22,22
46:20 48:18 65:10	59:1 61:9 62:22	227:15,16,17	282:2	225:22 231:21
68:16 71:7 72:2,3	63:11 65:4 66:1	228:12,14,22	<b>thinks</b> 58:17 78:12	235:11 238:13
72:19 73:13 74:9	66:10,11,18 70:20	229:6 230:5,12	80:16 224:17	240:19 255:14
76:5,6 80:8 84:5	70:20 71:8,19,20	232:11,14 233:16	<b>thinly</b> 182:15	257:17 261:1
85:14 86:20 87:8	72:4,5,8,10,12,15	236:7 237:2,5	<b>third</b> 12:13 13:18	277:5
87:20 88:4,16	73:4,11,11 74:4	238:6,19,19,20	43:17 79:10 135:4	<b>three-quarters</b>
90:1 91:8 113:4	75:7,17 76:22	239:12,13,17,21	194:22 201:19	97:19
117:10 129:22	77:18 78:1,7	240:5,6,21 241:6	232:6 248:1 258:1	<b>threshold</b> 206:14
139:20 140:1,8	79:19,20 80:3,7,7	241:13 242:4,8,20	266:16	244:22
145:12 146:11	80:13 81:4,16,17	243:2 244:19	<b>third-parties</b>	<b>threw</b> 82:1
152:16 153:3,8	82:11,20 83:17,19	245:12,15 247:3,5	154:18 194:15	<b>thrilled</b> 105:22
154:16 157:7	84:18 85:3,19	247:14,21,22	200:22	<b>thrown</b> 146:17
163:1 167:20	86:3,5 88:14,18	248:3,10,20,22	<b>third-party</b> 15:22	<b>Thunderbird</b> 56:18
170:6 175:4	89:6,7,14,18	249:3,8,15,19	19:3,12 49:16	<b>THURSDAY</b> 1:7
180:16 198:10	91:18 92:3 100:16	250:14 251:14	168:20 179:21	<b>ticked</b> 80:8
217:8 220:16,19	101:3 102:16,19	252:17,22 253:1,8	263:17 264:16,17	<b>tie</b> 132:19 259:17
224:5,10 227:2,3	103:8,11 105:14	253:15,20 254:14	265:2	<b>tied</b> 80:8 225:11
227:9 228:22	112:5,22 113:8,17	256:2,16 257:13	<b>Thirty</b> 43:3	234:17 278:19
229:2 230:3,15	113:19 116:10,11	259:11,14,17	<b>Thomas</b> 3:11 5:6	<b>ties</b> 27:2 200:16
232:15,19,21	116:11 117:1,13	260:3,6 261:3,9	6:8	233:11
233:17 236:15,18	117:22 118:10	261:14 263:18,19	<b>thorough</b> 287:19	<b>Tilly</b> 3:3
239:6,7,8 240:9	120:4 128:22	264:20 265:18	<b>thoroughly</b> 118:17	<b>tilt</b> 188:6
242:2,3,9 243:14	130:1 133:10,13	267:5,9,11,17,19	<b>thought</b> 13:6 22:22	<b>time</b> 11:20 12:4,7
245:22 249:14	134:2,11,17 135:2	268:1,1,3,15	34:8 35:10 36:3	12:10 13:6 16:17
252:17,19 262:14	136:1,7,8,11	269:14 270:21	38:13 66:7,9	20:15 25:5,13
266:21 267:22	137:16 138:19	271:5,13,18 273:8	72:10,18,22 78:21	34:3 39:4 40:16
270:19 274:16,19	139:8 140:1,14,15	273:22 275:21	103:5 105:6,14	42:16 53:12 65:18
275:8 281:4	141:21 150:6	277:16 278:5,8,14	140:11 176:3	68:4,6,12,16
285:17	158:7,10,14,15,18	278:15,18,20	190:7 220:1,2,9	69:12 70:3 73:22
<b>think</b> 22:10 23:18	158:20 159:2,4	280:9,20 281:3,20	220:12 221:10	90:20 94:7 95:15
25:2,4,12,14 27:5	160:1,13 179:20	282:19 283:2,10	240:10,15 247:3	99:7 100:7 123:12
28:2,14 29:8,21	183:22 184:5,17	284:12 285:13,18	257:5,16 259:8	129:16 141:22
29:22 30:2,14,21	184:21 188:15	288:19 290:14,16	279:12 284:13	147:4 150:9,17
31:8,12,21,22	192:12,15 193:6	<b>thinking</b> 11:7,17	<b>thoughtful</b> 209:10	158:3 159:5
32:14,22 33:2,3	194:3 196:6,17	13:10 16:13 35:12	287:5	162:20 165:15
33:12,13,16,21,22	197:13 199:10,12	35:17 40:7 72:11	<b>thoughts</b> 48:11,12	166:8 168:5,18
34:11,20,22 35:4	200:7,11,15,17	110:9 128:19	52:17 54:6 59:3	169:3,7 182:12
35:8 37:7,18 38:6	201:6,11,21,22	135:4,22 136:16	66:6 76:16 132:8	193:15,20 194:13
39:3,14,16,20,21	202:3,19 204:18	137:14 138:4,8	184:5 219:10	195:4 197:9,21
39:22 40:2,12,17	205:3 208:5,9	155:7 175:20	235:13 286:13	204:10 208:20
42:10 45:10,21	209:19 210:10,16	193:15 215:16	<b>thousand</b> 135:18	223:17,18,20
46:2 47:6,14,19	210:17 211:1,6,7	224:19 229:9	<b>threat</b> 138:20	224:2,5 232:5
47:20 48:6,19,22	211:22 212:1	236:11 237:8	<b>three</b> 18:7,7 32:17	234:5 241:14
49:2,5,9,17,19	214:12 215:6,11	240:17,19 259:22	45:17 46:4 97:7	242:16,18 254:21
50:6,13,19 51:1	216:6 219:6,14,15	260:2 269:19	121:10 146:18	256:15 267:7
51:14,19 55:2,16	219:19 220:3	271:6 273:22	155:5,13 170:9	270:7 277:1 278:5

284:8 287:9	221:9	<b>TRACE</b> 162:6,8	<b>transferred</b> 118:2	<b>trusts</b> 226:19
289:10,12	<b>told</b> 59:11 106:2	166:12 196:3	<b>transfers</b> 62:13	<b>trustworthy</b> 223:7
<b>timely</b> 93:10	288:8	<b>track</b> 106:1 280:19	<b>translate</b> 74:6	271:7 272:13
207:21 232:13	<b>tolerance</b> 185:18	<b>tract</b> 275:17	<b>translating</b> 54:12	<b>try</b> 32:13 38:12
265:20	<b>Tom</b> 5:4 7:11 56:15	<b>trade</b> 162:5 165:9	74:5	40:16 41:10 86:8
<b>times</b> 27:8 28:18	56:17 57:10 66:5	166:13 167:2	<b>translation</b> 72:6	133:17 137:14
35:4 44:7 55:9	75:6 78:8 79:18	172:12,13,17,17	76:2	141:15 152:16,19
70:16 71:6,12	81:22 100:8 113:8	172:18,22 174:8	<b>transparency</b>	157:8 191:18
74:10 94:13	133:13,15 135:20	178:2 180:4	76:15 91:10 98:17	194:19 199:13
109:10,11 114:4	181:11 220:8	188:20	153:14 155:20	206:6 216:11,12
127:18 132:17	222:9,9,13 254:2	<b>traded</b> 154:17,17	166:6 167:5	220:5 225:1
159:12 164:19	264:5 265:10	178:15 182:15	170:17 171:20	226:14 284:8,10
171:12 172:2,4	266:9 269:19	226:3,6	173:8,13,16	286:12
178:5 193:10	271:11 279:1	<b>tradeoff</b> 100:19	180:11 181:2	<b>trying</b> 35:6 44:9,11
204:11 205:15	<b>Tom's</b> 229:14	<b>traders</b> 155:18	184:6,22 188:17	44:14 58:2 80:12
227:5 251:21	263:8 270:5	251:17	217:13 225:19	90:21,22 101:13
<b>timing</b> 110:3 231:7	<b>tomorrow</b> 193:22	<b>trades</b> 161:18,19	245:21	102:13,14 109:19
265:20	<b>tone</b> 263:7	162:7 163:6	<b>transparent</b> 179:6	120:17 121:8
<b>tiny</b> 148:10,10	<b>tool</b> 167:5 170:18	168:12 172:9	196:7 253:14	137:12,18 138:7
<b>today</b> 8:15 9:5,13	<b>tools</b> 164:8 166:9	173:12 177:18,19	256:10	155:12 156:12
11:6,9 15:19	188:17 194:14,14	<b>trading</b> 73:16	<b>Treadway</b> 2:9	157:13 190:20
22:11 34:16 38:13	194:15 195:2	182:18 196:21	<b>treasuries</b> 245:2	191:1 215:18
38:16 39:2,12,15	196:4 241:10	225:16,17 226:7	<b>treat</b> 126:1	217:21,22 230:12
40:4,19 43:21	<b>top</b> 45:18 112:13	230:4 251:2	<b>trend</b> 197:14	235:9 239:12
57:13 58:5,14,18	147:22 263:7	<b>traditional</b> 156:9	<b>trending</b> 207:14	241:9,10,15,16
59:12,16 63:12	<b>topic</b> 8:19 9:14,14	<b>train</b> 191:1,2 251:1	<b>trends</b> 23:12	269:5 285:21
64:1 65:16 72:2	9:14 18:14 45:9	251:3	200:20	<b>tumbling</b> 147:5
74:16 81:4 88:16	45:11 105:1 142:5	<b>trained</b> 117:20	<b>tried</b> 71:2 105:9	<b>turn</b> 20:21 29:10
91:22 97:2 100:7	160:1 187:16	118:2 135:5 140:9	199:14 227:19	29:12 34:1 56:9
104:5 117:11	190:8 223:5	153:12	<b>tries</b> 193:5	57:10 89:15
119:7 132:6,13	257:14 265:20	<b>training</b> 130:20	<b>triggering</b> 159:21	100:12 103:22
158:22 180:1	290:15	191:2 193:13	206:16	143:12 155:22
193:22 195:11	<b>topics</b> 9:13 11:12	241:4 243:10	<b>trillions</b> 225:11	198:4 284:8
197:8 198:6,12	65:15 104:10	251:9,12 271:20	226:5	286:11
209:5 214:7 217:1	105:21 213:14	<b>trainings</b> 37:21	<b>trip</b> 290:18	<b>turned</b> 144:11
217:20 218:1	254:3 273:18	<b>trait</b> 136:1	<b>trouble</b> 63:4 113:3	147:5,9
222:1 237:6 240:5	<b>torn</b> 149:16	<b>transact</b> 173:18	113:4,15,17 258:6	<b>Turning</b> 123:6
240:10,10 241:3	<b>total</b> 26:10 150:16	<b>transacting</b> 162:15	<b>troubled</b> 101:8	<b>turnout</b> 8:13
241:13 248:3	<b>totally</b> 72:12	<b>transaction</b> 93:19	<b>troubling</b> 123:15	<b>Tweedie</b> 3:13 5:9
256:19,22 257:15	<b>touch</b> 75:5 121:7	161:14 182:11	268:19	6:15 142:13
258:9,14 259:15	200:3	225:5 226:9 282:1	<b>true</b> 96:13 106:19	143:14 181:19
259:16 262:8	<b>Touche</b> 3:2 5:5	<b>transactions</b> 99:9	106:21,21 139:21	<b>two</b> 13:15 15:18
264:1,2,12,20	<b>touched</b> 48:17	166:14 226:13	179:10 194:8	17:6 19:21 21:8
266:5 277:17	204:22 215:12	262:2	<b>truly</b> 27:18 29:1	21:17 28:19 43:9
281:3,7 286:3,13	254:2,18	<b>transfer</b> 118:4,5	35:20 41:14	60:12 72:18 85:19
286:16 290:8	<b>touches</b> 65:15	134:21 149:8	133:18 158:4	86:6 97:7 100:11
<b>today's</b> 9:6,11	<b>tough</b> 90:6 224:9	234:14,14	<b>trust</b> 145:14,21	104:1 110:8

112:19 113:2,5,5 120:13 132:17 143:17 152:16 155:5,9 167:19 172:4 180:5 184:5 188:8 193:17 196:5 202:6 215:6 230:3,10 231:11 235:11,12 253:16 277:6 284:1 <b>tying</b> 270:2 <b>type</b> 27:3 28:21 29:9 83:13 123:22 135:2 172:12 184:8 207:16 210:21 215:20 216:6 226:2,14 227:8 234:13 268:7 <b>types</b> 44:15 46:6 70:2 79:22 89:10 89:12 207:14 214:14 230:9,15 233:17 235:19 239:6,6 <b>typical</b> 262:11 <b>typically</b> 161:15 261:5,7 265:8	<b>unbiased</b> 59:2 60:8 61:21 62:3 220:15 220:16 <b>uncertain</b> 126:20 <b>uncertainties</b> 88:4 156:3 <b>uncertainty</b> 22:17 33:16 106:15,16 107:18 108:12 109:3,4,9,10,13 109:18 111:1 112:19 114:14,17 115:8 123:14 127:3,8,9,10 128:7 131:15,18 131:21 132:1,3,16 132:22 134:4,8 198:9 218:4,11 237:22 276:18 288:2,3 <b>undergraduate</b> 136:3,9 138:9 <b>underlying</b> 26:20 26:22 54:10 98:3 123:11 179:11 189:14 <b>understand</b> 24:6 24:18 25:8 26:18 44:14 48:21 50:15 66:15,17 73:18 74:10,12,14 77:21 78:2,3,4,5 89:1 99:11,14 102:17 103:6,9 105:10 111:22 118:17 119:16 120:15,17 121:8 128:10 138:16,17 139:9 153:7 155:21 168:6,20 173:21 179:9 183:15 185:1 189:5,8,11 207:17 210:1 224:8,15 228:5 233:9 234:16 236:22 237:4 244:1,13 249:6	250:9 255:17,21 256:5 263:2,6 <b>understandability</b> 200:14 <b>understandable</b> 184:9,10 228:8 <b>understanding</b> 28:3 32:20 33:1 39:17 72:20 73:8 79:14 90:5 98:18 112:5 120:1,1 126:14 134:15 139:13 161:7 173:15 175:13 179:15,16 180:18 185:1 187:10 201:8 202:8,11,20 202:21 203:17 205:8 208:10 224:1 233:18 247:7 248:5 253:5 253:5 287:19 <b>understands</b> 55:1 60:19 203:7 <b>understated</b> 201:12 <b>understates</b> 134:18 <b>understood</b> 78:1 103:4 146:8 <b>undertaken</b> 74:20 216:9 <b>underway</b> 94:6 <b>undue</b> 224:22 <b>unfair</b> 285:4 286:2 <b>unforeseen</b> 227:13 <b>unfortunately</b> 101:17 160:4 <b>unilateral</b> 191:9,11 <b>unimportant</b> 126:18 <b>uninitiated</b> 176:10 <b>unintentional</b> 110:7 111:19 135:12 <b>unique</b> 9:11 15:4 131:17 172:3 209:3 253:2,2,14 258:4	<b>United</b> 95:16 144:17,19 145:2,6 145:7,9 149:1 <b>universal</b> 153:9 <b>university</b> 2:3,5,8 2:19 3:6 4:13,14 4:16 61:14 84:1 93:6 104:6,15 118:8 138:14 222:3 238:4 <b>unobservable</b> 107:9,18 154:21 224:7 <b>unquote</b> 158:6 <b>unravel</b> 226:20 <b>unreasonably</b> 60:20 <b>unreliability</b> 151:12 <b>unsaid</b> 281:10 <b>unsophisticated</b> 176:10 <b>unstable</b> 278:7 <b>untenable</b> 131:15 <b>unusual</b> 99:8 232:22 <b>up-front</b> 272:7 <b>up-to-date</b> 252:13 <b>upcoming</b> 17:19 <b>update</b> 16:22 227:1 240:14 244:9 <b>updated</b> 93:15 <b>updating</b> 39:1 <b>upping</b> 90:4 <b>upstairs</b> 141:14 <b>urgency</b> 129:20 <b>USA</b> 2:14 <b>use</b> 12:13 19:2 33:4 37:16 49:16 52:20 53:4 76:8 79:7 80:20 87:15 105:17 106:9,12 106:15 108:1 110:12 118:6,9 123:1 125:21,22 126:4,4,6 131:12 137:9 144:19	162:2 163:2,12,18 164:21 165:17 168:9 176:2 178:11 180:10 184:11 186:1,1 191:2 194:18 195:2 200:22 201:3 216:8 235:13 242:6,10 243:4 244:2,15 246:1 247:11 248:1,12 250:6 252:9 263:17 264:17 266:10 267:2 271:15 273:16 282:16 283:21 <b>useful</b> 13:7 20:12 33:12 49:2 71:12 73:1 92:16 111:9 249:19 253:9 271:7 274:2 <b>usefulness</b> 237:14 <b>user</b> 198:16 <b>users</b> 103:11 151:15 175:22 180:9 218:13 <b>uses</b> 25:9 68:19 180:17 <b>usually</b> 31:7,15 122:11 137:22 167:18 169:7 172:15 250:5 <b>utilized</b> 261:18
<hr/> <b>U</b> <hr/>				<hr/> <b>V</b> <hr/>
<b>U.S</b> 1:21 41:16 45:14 65:3 148:21 149:8 150:5 245:1 245:2,3 <b>UK</b> 86:2 95:16 98:14 143:22 144:4 150:12 270:22 <b>UK's</b> 95:13 <b>ultimately</b> 50:3 66:17 75:22 176:17 178:14,22 182:21 185:9 186:3,16 189:4 193:17 <b>unacceptable</b> 157:2 <b>unaffordable</b> 282:5 <b>unanimously</b> 19:22				<b>V</b> 1:20 <b>valid</b> 174:13 <b>validate</b> 174:12 <b>validating</b> 118:21 <b>validation</b> 171:5 246:18 <b>valuable</b> 8:17 51:15 53:10 56:7 103:21 132:8 284:13 285:18 290:10 <b>value</b> 119:2

164:16	233:6 269:15	242:20,21,22	217:3	<b>view</b> 14:4 20:14
<b>valuation</b> 3:14 5:9	281:14	243:2,22 246:1	<b>variation</b> 152:14	26:16 28:13 29:14
6:14,15 27:14	<b>valuators</b> 31:7	247:22 248:4,6	155:13 184:15	31:5 37:12 50:11
43:17 55:21 67:4	<b>value</b> 9:17,19 10:14	250:18 252:4	270:5	72:14 94:22 96:9
67:5,7,15 72:12	11:2,13 12:9,14	253:6 258:3	<b>variations</b> 152:7	100:1 181:2,9
74:18,21 75:13	13:17 15:5 16:14	259:10 261:3,4	155:15 184:14	218:14,17 224:15
78:3,7 87:13,14	17:4,7 20:18	262:8,10 266:14	<b>varied</b> 123:22	227:11 229:1
88:13,14,16,20	22:15 24:8 25:10	267:3 268:11,11	<b>varies</b> 40:1	231:6 234:20
89:1,3 96:10,15	25:12,16 30:7	268:12 269:3,5	<b>variety</b> 9:13 23:14	243:8,11 245:20
106:18 110:3,18	36:13 42:15 43:9	272:15,17 273:17	68:14 69:20 93:8	270:22 271:19,21
117:21 118:3,5	44:13,16,22 46:10	277:13 278:10	221:21 235:16	274:17 284:3,14
119:19,19 122:11	46:11 51:2,5	280:13 282:21	268:21	285:21 288:20,22
122:12 124:10,15	56:12 57:22 64:6	287:17,20 288:9	<b>various</b> 8:22 11:5	<b>viewing</b> 10:10
126:1,5,9 130:15	65:1 66:19,21	288:15	11:12 16:5,7	<b>viewpoint</b> 229:14
130:16,16,18,20	68:19 69:3,5,7,11	<b>valued</b> 91:13	19:15 27:10 57:1	<b>views</b> 9:5,7,9,10
131:11 135:10	69:22 70:12 72:14	180:18 273:4,4,5	89:10 151:20	11:5 12:19 16:5
138:16,19,22	73:17 81:14 85:6	276:13 280:18	153:13 156:14	38:10 50:8 93:3
142:5,6 143:10,16	90:22 92:13,15	281:5	201:5 208:22	94:11 132:10
143:16,21 145:15	93:1,8,20 94:5,9	<b>valuers</b> 270:9	237:11	142:1,2 155:1
145:22 146:1,2,16	94:12,16,20 98:11	<b>values</b> 11:16 14:11	<b>vary</b> 230:13 235:16	211:13 269:3
151:21 152:15,18	98:15 100:3,18,18	15:1 16:6 18:22	<b>varying</b> 269:22	286:19 287:5
152:22 153:4	101:9 102:7 104:3	20:9 30:10,12	<b>vast</b> 32:5	288:17
155:10 156:6,11	107:13 108:21	56:2 64:3 77:6	<b>vehicle</b> 240:1	<b>Virchow</b> 3:3
156:22 157:9,22	109:5 111:7	81:7 85:2 86:13	<b>vendor</b> 246:13,22	<b>virtually</b> 285:15
158:4,6 160:13	112:12,12 131:17	99:19 104:13	247:20	<b>visit</b> 199:7
181:20 191:5,16	133:4 134:14,22	105:13 106:14	<b>vendor's</b> 244:12	<b>vivid</b> 139:2
192:6 194:4	141:6 142:6,9	109:5 110:2	<b>vendors</b> 196:8,12	<b>vocabulary</b> 130:18
195:12 197:12,16	146:12 147:14	111:10 112:9,10	243:13,14,16,19	<b>vodka</b> 144:2
197:22 209:15	148:20,22 149:9	117:15 118:15	243:19 244:5	<b>volatile</b> 150:12
212:15 215:21	149:19 150:3,6,18	123:9,11 134:17	246:4,8 247:4,8	<b>volume</b> 197:3
222:12 224:2	150:21 151:7,10	138:20 143:18	<b>venture</b> 276:6	<b>voluntary</b> 189:9
227:8 232:7	151:11 154:11	147:2,3,4,8,9	<b>verification</b> 59:7	<b>votes</b> 163:6
233:15 235:14	155:2,6 156:1,1,5	151:14 180:12	59:17 113:7,9	<b>vouch</b> 239:7
243:3,6,7 250:20	156:10,11,17	181:3 187:12	122:4 131:1	<b>vulnerable</b> 130:12
263:9,12 268:20	157:9 177:1 178:7	203:17 204:2	<b>verify</b> 64:10,11	288:6
269:12,13,21	181:18 182:4	213:10,10 257:18	113:12 115:9	
270:10 271:22	183:1,21,22	258:18,21 273:14	122:3 125:2	<b>W</b>
273:2 277:19	191:22 192:1	274:12 284:21	<b>verifying</b> 69:4	<b>W</b> 3:15 5:8 7:5
279:18 280:1	200:20 201:13	285:4	121:13 122:6,6	<b>wait</b> 34:6
284:21 285:19	208:6 211:4	<b>valuing</b> 146:11	125:3	<b>walk-through</b>
287:21	213:12 214:9,10	272:13,16	<b>versus</b> 71:2,17	244:11
<b>valuations</b> 74:11	214:11,15 215:17	<b>Vanich</b> 5:21 7:16	115:18 133:5	<b>Walker</b> 145:7,11
90:21 118:16	216:6 218:3	16:8 50:5 181:4	134:4 181:9 182:6	<b>wall</b> 147:21
135:7 142:14	220:17 223:10,20	286:15	234:8 252:20	<b>WALLACE</b> 2:1
153:14,17 182:2	225:3,15 229:21	<b>Vantage</b> 166:9	253:7,18 266:15	<b>Walman</b> 237:19
204:8,20 220:17	229:21 231:13	<b>variability</b> 245:12	<b>Vice</b> 1:20 2:1 3:8	<b>Walt</b> 219:8 220:7
225:22 227:22	234:4,5 235:7,10	<b>variables</b> 154:14	<b>VIE</b> 213:11	<b>Walter</b> 3:9 62:19
				63:9 65:14

<b>WALTON</b> 1:21	<b>warranting</b> 285:8	29:17 30:13,14,17	28:17 29:15 31:6	141:21
<b>want</b> 10:18 12:3	<b>warranty</b> 213:4	30:20 32:5 35:12	32:3,6,8,10,16	<b>welcomed</b> 200:15
34:5,6 45:15	215:22	39:20 43:21 44:9	36:8 38:7 45:8	<b>well-accepted</b>
51:11,12,18 52:6	<b>Washington</b> 1:10	44:11,14 58:2,18	49:18 56:12 64:1	279:22
57:14 58:11,12,15	<b>wasn't</b> 50:13 82:8	68:14 69:6 72:13	68:2,10,20 74:20	<b>well-defined</b>
58:17,22 59:2,4	225:19 226:3	74:10 85:1,5	76:10 80:4 84:18	260:10
59:19 60:9 64:20	227:2 238:4	86:13 89:22 90:14	86:12 117:11	<b>well-developed</b>
65:13 66:3,17	274:12 281:10	90:15 98:14 104:5	120:14,16 121:8,9	136:18
69:16 71:6 74:12	<b>watch</b> 149:16	105:20,21 106:1,4	124:7 152:6,17	<b>well-founded</b>
74:14 75:9 76:11	<b>watching</b> 204:19	107:14 109:17	162:22 164:11	260:11
76:12,19 78:14,17	<b>water</b> 278:4	110:22 128:17	165:15 167:3,4	<b>well-meaning</b>
79:1,19 80:16	<b>waterfalls</b> 226:19	133:12,17 147:7	170:6,20 176:18	106:16
81:5,13 82:18	<b>wavered</b> 94:16	151:22 152:16	186:16 188:18	<b>well-qualified</b>
86:9 88:12 91:4,7	<b>way</b> 46:9 47:17	153:3,3 154:2	189:5 194:16	269:2
99:22 102:4	50:10 58:3,4	155:3,10,12	195:7 198:6 201:1	<b>well-reasoned</b>
111:15 116:22	60:10 63:3,10	156:12 158:12	201:13 204:22	54:19
127:6 129:21	76:8 86:18 88:5	159:15 163:4,18	206:7,10,12	<b>went</b> 26:8 36:7
135:15 137:9	105:10 107:17	168:5,7,8,8,18,20	218:21,22 221:20	45:18 67:11
157:16,18 168:20	110:10 121:5,6	171:4,14 173:4	231:20 235:12	141:18,19 149:20
174:6 176:20	129:5,6 137:11,21	174:22 175:2,17	240:15,17,18	221:16,17 225:12
177:7,16 178:9	154:6 157:10	176:22 177:8,14	241:4,5,8 242:1	225:16 240:12
179:7 189:17	175:5 176:4 192:6	177:17,19 178:6	244:4,21 246:6,7	242:19 286:16
190:10 191:3	211:7 220:15	179:1,5,6 180:4	246:8,10,21	<b>weren't</b> 226:3
199:16 209:6	225:16 236:17	182:14 183:3,6,21	250:17,18 251:11	285:17
224:9 232:8	243:14 247:1,10	183:22 186:3,17	252:7,11 262:8,12	<b>Wharton</b> 3:10
236:13 256:1	264:21 278:8	186:18 189:18	264:20 265:7,11	<b>whichever</b> 50:10
276:8 277:20	287:14	194:20 196:17	277:3 285:14	<b>white</b> 3:15 92:21
278:6,18,21	<b>Wayne</b> 2:14 51:16	197:18 198:3,11	289:20	93:2 94:3,11
286:11,16 289:9	53:15 54:3 133:13	209:3,6 213:16	<b>weaknesses</b> 103:13	227:20
290:7,13	135:20 184:4	215:18,20 217:22	<b>wealth</b> 62:12	<b>whoever's</b> 194:10
<b>wanted</b> 10:19 23:16	<b>ways</b> 23:15 94:22	219:1 230:20	134:21	<b>wide</b> 46:6 152:13
34:4 51:14 62:16	110:7 121:1,5	241:15,17 244:13	<b>web</b> 115:14 170:19	158:1 193:8 208:1
104:21 106:11,11	133:10 137:14	245:10,21,21,22	<b>Webb</b> 4:8 277:4	215:14,19 219:2,5
111:4 117:10	148:19 159:9	246:13,15,16	281:11 282:13	268:21
129:20 138:11	202:6 239:17	248:7,7 251:5,5,6	<b>webcast</b> 8:8	<b>wide-ranging</b>
139:19 145:13	<b>we'll</b> 11:22 40:22	252:13 257:10,14	<b>website</b> 10:10,11	238:13
149:21 150:1	41:6 42:12 51:12	258:15 265:17	<b>weeds</b> 39:19	<b>widely</b> 219:7
162:13 192:11	52:21 57:10 75:4	268:2,3 270:8	<b>week</b> 149:14	<b>width</b> 128:4
193:9 195:1,9	107:22 133:15	277:15,18 278:15	<b>weeks</b> 19:22 146:19	<b>Wilde</b> 205:20
209:11 258:7	141:12 152:19	283:5,6 284:16	172:19	<b>WILLIAM</b> 3:1
280:16 281:9	167:1 174:11,12	286:13 290:16	<b>weigh</b> 219:20	<b>willing</b> 8:16 181:22
282:13	174:14,15 178:13	<b>we've</b> 8:14 9:12	<b>weighing</b> 101:2	182:8 183:12,17
<b>wanted</b> 166:18	179:3,4 241:7	10:1 11:8 12:6,11	<b>weight</b> 216:2	249:11 250:5,7
<b>wanting</b> 34:21	242:16 248:1	12:20 13:11 17:21	<b>weighting</b> 108:1	251:6,6 253:11
<b>wants</b> 159:1 194:10	254:1 289:11	22:13 23:9,9,10	<b>Weinberg</b> 2:4	270:6
<b>war</b> 270:16	<b>we're</b> 8:12,16 9:13	24:10 25:21,21	<b>Weiss</b> 3:9	<b>willingness</b> 8:13
<b>warehouses</b> 194:17	12:17 20:13,17	26:1,13 27:16	<b>welcome</b> 6:2 8:7	<b>winner</b> 107:2

<b>wiped</b> 152:4	263:19 268:17	<b>wraps</b> 163:8	255:14 264:2	185:4
<b>wish</b> 61:2 78:1	269:22 271:16,22	<b>write</b> 145:4,10,10	271:2	<b>16.3</b> 109:7
217:8	272:3 274:6	236:21	<b>yesterday's</b> 69:5	<b>160</b> 6:18
<b>Wolf</b> 2:12 4:19	277:21	<b>written</b> 13:21	<b>yield</b> 154:10 165:8	<b>17</b> 213:21
222:17 257:4	<b>worked</b> 29:20 60:6	179:10 189:17	<b>yielded</b> 151:21	<b>175</b> 6:19
<b>Wollard</b> 2:3	68:6 91:3 105:2	225:10 235:7	<b>York</b> 65:14 93:6	<b>18</b> 99:6 257:7
<b>wonder</b> 70:15 73:1	127:9 140:13	<b>wrong</b> 34:12 91:4,5	143:8	<b>18.2</b> 114:15,16,18
100:22 175:15	144:10 240:11	91:8 278:20	<b>Yorkshire</b> 2:10	<b>1825</b> 1:10
<b>wondering</b> 36:15	256:14	<b>wrote</b> 61:5 144:5	<b>young</b> 3:9 191:3	<b>19</b> 114:19,20
54:8 184:16	<b>workflow</b> 164:1	<b>Wyatt</b> 84:1,3	<b>younger</b> 73:5 77:22	<b>19.4</b> 109:7,10
193:20	167:6		146:2	<b>190</b> 6:21
<b>word</b> 49:14 50:8	<b>working</b> 21:21 22:3	<b>X</b>	<b>Z</b>	<b>1930s</b> 59:6 82:11
52:19,20 54:4	29:9,15,17 32:9	<b>X</b> 60:11,15,19 61:1	<b>Z</b> 276:2	<b>1970</b> 193:4
137:9 139:18	32:11,13 44:7,8	61:4,7 218:16	<b>zone</b> 270:14,16	<b>199</b> 7:3
246:18 289:17	108:16 129:14	276:2		<b>19th</b> 9:15
<b>wording</b> 225:2	140:4 179:8	<b>X's</b> 61:11,19	<b>0</b>	
227:12 236:22	187:21 228:5		<b>1</b>	
<b>words</b> 49:18 50:1	262:15	<b>Y</b>		<b>2</b>
53:5 74:4,5 81:5	<b>workplan</b> 17:21	<b>Y</b> 218:16 276:2		<b>2</b> 1:7 23:22 24:11
118:19 175:21	<b>works</b> 66:18	<b>Yeah</b> 271:18		36:12 64:1,3
217:16 290:17	173:22 175:17	<b>year</b> 19:7 20:3 43:1	<b>1</b> 73:14 150:7	73:14 82:15,21
<b>work</b> 16:21 18:17	176:12 179:12	45:3 55:5 73:6	258:16 273:1	115:15,18 258:16
18:22 22:14 23:22	209:1	85:15 98:15	<b>1:20</b> 141:12	273:1
24:9,22 27:7,8,12	<b>world</b> 21:6,16	151:19 156:20	<b>1:24</b> 141:20	<b>2.7</b> 161:1 164:16
28:20,22 29:3,5,6	40:17 44:4 48:22	169:19 173:10	<b>10</b> 126:2 161:9	173:5 180:3
30:15 31:6,9	49:6 106:3,4	195:13 257:9	<b>100</b> 150:12	188:14 244:17
33:11 38:6 39:5	148:2 161:17	266:22	<b>1000</b> 17:13	<b>2:58</b> 221:17
40:12,14 46:22	165:1 171:21	<b>year's</b> 8:10	<b>104</b> 6:12	<b>20</b> 68:20 74:16,19
47:5,9,10,11,18	172:1,8,10 173:14	<b>years</b> 13:21 17:2	<b>11</b> 238:1	84:3 87:3,4
48:6,8 51:20 55:8	173:15 182:17	20:16 22:13 23:9	<b>113</b> 43:13	127:15,16 161:8
55:13 64:10,14	186:3 239:3	25:4 38:22 49:1	<b>115</b> 68:20	170:10 257:7
67:1,5,7,13,16	274:18	68:20 74:8,16,19	<b>12</b> 14:6 72:22 74:4	<b>200</b> 161:4 164:17
73:12 77:5,8,10	<b>worldwide</b> 148:11	82:3 84:3 87:3,4	85:13 260:7,10	230:22
77:13,20 78:2	<b>worry</b> 53:4	94:15 102:6 145:3	<b>12-month</b> 38:3	<b>2003</b> 65:13 238:2
90:11 96:17 98:20	<b>worrying</b> 151:18	145:4 150:12	<b>12:41</b> 141:19	<b>2007</b> 17:2,10 49:5
103:11 114:22	<b>worse</b> 196:16	151:4 161:6,7,8,8	<b>120</b> 6:13	182:16 227:19
120:20,21 123:7	<b>worth</b> 144:7 151:6	161:9 162:19	<b>123</b> 67:9	<b>2008</b> 92:19 93:2
125:10 126:14	155:8 176:22	164:1 165:16	<b>128</b> 68:20	94:2 143:20
136:8 137:3 140:8	183:22 250:14	166:3 167:4,14	<b>13</b> 14:7 72:22	150:13 280:4
160:5 168:3 171:5	<b>worthwhile</b> 75:20	168:19 170:6,10	213:20	<b>2009</b> 119:7 150:15
183:1,11 186:17	<b>worthy</b> 93:22	170:10 174:22	<b>133</b> 68:20	<b>2010</b> 14:3 32:3
191:17 193:14	<b>wouldn't</b> 145:14	181:6 184:6	<b>135</b> 161:2	<b>2011</b> 17:14 151:14
194:3,3 196:13	183:16,16,19	192:14 196:16	<b>141</b> 212:15	<b>2012</b> 42:4
202:3,9 205:11	236:14 245:8,17	197:10 204:13	<b>143</b> 6:15	<b>2013</b> 43:1
206:7 245:11	245:18	211:9 212:8	<b>15</b> 14:2,14 221:14	<b>2014</b> 1:7 42:18 45:2
246:8,21 247:2	<b>wrap</b> 187:6 284:9	219:16,16,17,18	<b>1500</b> 67:9	95:13 108:15
249:2,17,22	287:10	230:22 237:17	<b>157</b> 6:16 235:8,8	<b>2016</b> 20:4
		238:1,2 240:19	273:16,21 276:12	<b>208</b> 7:4
			<b>16</b> 43:5,7 169:13	<b>210</b> 257:6

<b>211</b> 7:5	<b>40-year</b> 284:14			
<b>215</b> 7:6	<b>400</b> 150:14			
<b>22</b> 6:4	<b>41</b> 6:7 201:17			
<b>221</b> 7:7	<b>47</b> 231:3			
<b>223</b> 7:10				
<b>24</b> 101:10	<b>5</b>			
<b>240</b> 7:11	<b>50</b> 41:22 42:1 114:3			
<b>25</b> 197:9 203:10	114:4,6,9 161:3			
257:7	<b>500</b> 67:11 250:18			
<b>256</b> 7:12	250:19 263:8			
<b>26.5</b> 109:7	<b>540</b> 17:2,16 18:15			
<b>266</b> 7:13	18:16 19:5 20:8			
<b>280</b> 150:17	29:16 32:4,8 33:8			
<b>286</b> 7:17	49:4 237:1			
<b>289</b> 7:20,22	<b>57</b> 6:8			
<b>29</b> 6:5				
	<b>6</b>			
<b>3</b>	<b>6.5</b> 150:6			
<b>3</b> 25:11 36:12 46:10	<b>60</b> 38:12 73:17			
64:1,3 68:8,9	<b>60s</b> 36:10,12			
111:10 115:18	<b>66</b> 6:9			
258:19 268:13,16				
268:21 272:12	<b>7</b>			
273:3,14 274:9,12	<b>70</b> 109:6,7			
276:13,19	<b>70s</b> 36:12 284:17			
<b>3.7</b> 151:10	<b>79</b> 95:6			
<b>3:00</b> 221:14				
<b>3:15</b> 221:15	<b>8</b>			
<b>3:19</b> 221:18	<b>8</b> 6:2 14:2			
<b>30</b> 6:6 114:11 145:3	<b>80</b> 108:18			
192:14 224:13	<b>80s</b> 143:22			
227:21	<b>820</b> 224:14 235:8,8			
<b>300</b> 150:14	273:21 276:12			
<b>30s</b> 113:8	<b>8th</b> 1:10			
<b>328</b> 13:16				
<b>332</b> 13:18	<b>9</b>			
<b>342</b> 13:15				
<b>342.03</b> 59:22 61:16				
63:15				
<b>35</b> 201:17				
<b>37</b> 151:6				
<b>39</b> 146:5				
<b>3rd</b> 10:16 34:17				
<b>4</b>				
<b>4:43</b> 290:20				
<b>4:45</b> 277:1				
<b>40</b> 145:4 201:17				

C E R T I F I C A T E

This is to certify that the foregoing transcript


In the matter of: Standing Advisory Group

Before: PCAOB

Date: 10-02-14

Place: Washington, DC

was duly recorded and accurately transcribed under  
my direction; further, that said transcript is a  
true and accurate record of the proceedings.

  
-----  
Court Reporter

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)



**NOTICE:** This is an unofficial transcript of the portion of the Public Company Accounting Oversight Board's Standing Advisory Group meeting on June 18, 2015 that relates to the Board's project on *Auditing Accounting Estimates, Including Fair Value Measurements and Related Disclosures*. The other topics discussed during the June 18, 2015 meeting are not included in this transcript excerpt.

The Public Company Accounting Oversight Board does not certify the accuracy of this unofficial transcript, which may contain typographical or other errors or omissions. An archive of the webcast of the entire meeting can be found on the Public Company Accounting Oversight Board's website at: [http://pcaobus.org/News/Webcasts/Pages/06182015\\_SAG.aspx](http://pcaobus.org/News/Webcasts/Pages/06182015_SAG.aspx).

1           MR. BAUMANN: Well thank you very much for getting  
2 back after break. I see everybody running to their seats  
3 and trying to hit our target time.

4           We're in the home stretch here, but we have a very  
5 important discussion left in the remaining time, and that  
6 is moving ahead and continuing to make progress on our  
7 proposed standard on auditing accounting estimates and fair  
8 value measurements.

9           As we know, financial statements are largely a  
10 conglomeration of estimates and fair value measures, so  
11 there can't be a more important auditing standard.

12          Barbara Vanich has been leading the project and will  
13 lead the discussion. Barbara?

14          MS. VANICH: Thank you, Marty, and good afternoon.  
15 It's my pleasure to talk to the SAG this afternoon about  
16 our project on auditing accounting estimates and fair value  
17 measurements.

18          Before I start to talk, we're going to try to keep  
19 this light. We realize you've had a lot of heavy lifting.  
20 It has been a very technical agenda, so I'll talk briefly,  
21 and then we'll give you a chance to put in some comments.

1           But I would like to introduce my righthand women,  
2           literally, to my side, my teammates on this project,  
3           Dominika Taraszkiewicz and Nike Adesoye.

4           So this afternoon, we're going to talk about various  
5           aspects of the project.

6           First, we'll spend a few minutes providing a brief  
7           introduction, which will include a summary of our  
8           activities since we last briefed you on this project last  
9           November.

10          Next, we'll talk about the general direction of the  
11          project. This will include a brief discussion of the need  
12          for standard setting, along with the areas of the project  
13          where the staff feels fairly confident about making a  
14          recommendation to the Board.

15          We previously talked about the need for standard  
16          setting back in October. However, today's discussion will  
17          reflect some refinements based on comments received on the  
18          staff consultation paper on accounting estimates and fair  
19          value measurements.

20          We're interested in whether SAG members believe  
21          there may be additional needs for the staff to consider.

1           The discussion on the general direction of the  
2 project will also include a brief overview of the areas  
3 that based on comments or other outreach the staff feels  
4 prepared to talk to the Board about a recommendation. SAG  
5 members will have their chance to provide a view on these  
6 areas.

7           And then lastly, we want to talk about three areas  
8 where the staff continues to perform research. For each of  
9 these three areas: addressing significant measurement  
10 uncertainty; emphasizing professional skepticism; and the  
11 use of third parties; we'll talk about certain  
12 alternatives, many of which were provided by commenters.

13           SAG members will then have a chance to provide views  
14 on the alternatives discussed along with alternatives that  
15 we might not have mentioned.

16           This morning we heard from some great panelists and  
17 had lots of great discussion on specialists, how and in  
18 what way they interact with companies and auditors. Some  
19 of what you heard this morning has direct relevance on our  
20 discussion regarding the use of third parties, so when we  
21 get to that part of today's conversation, I'll summarize my  
22 thoughts on what I heard because I think you may have

1 already responded to some of the alternatives and questions  
2 we want to ask today.

3 So very briefly, it has been about ten months since  
4 we issued the staff consultation paper on auditing  
5 accounting estimates and fair value measurements. We had a  
6 special meeting of the SAG last October. We had a great  
7 discussion about the consultation paper at that time.

8 The comment period ended in November, and we  
9 received 40 comment letters. We discussed a summary of  
10 those comments with the SAG in November.

11 Since then, the staff has completed a detailed  
12 analysis of the comment letters received. We've conducted  
13 additional research on measurement uncertainty and on the  
14 use of third parties. And we also participated in a panel  
15 discussion on biases related to estimates and fair value  
16 measurements at the 2015 PCAOB-AAA Annual Meeting.

17 It was through preparing for that panel discussion  
18 and listening to the SAG meeting back in October and then  
19 reviewing the notes from that meeting that we got to one of  
20 our topics for discussion this afternoon, and that is how  
21 to better emphasize professional skepticism in a new

1 standard on auditing accounting estimates and fair value  
2 measurements.

3 So let's turn our discussion to the need for  
4 standard setting. As Marty talked about this morning,  
5 considering the need for standard setting is a key part of  
6 our economic analysis.

7 The staff included a discussion of our preliminary  
8 view on the need for standard setting in the staff  
9 consultation paper, and that need included audit  
10 deficiencies noted by the PCAOB and by other audit  
11 regulators, changes in the financial reporting frameworks,  
12 growing reliance on the work of third parties, and concerns  
13 expressed by some over perceived inconsistencies in the  
14 existing standards.

15 Through comment and SAG discussions, we have  
16 identified several other needs that we're going to spend  
17 time on a little bit later today, but the first, as I  
18 mentioned, is how to greater emphasize professional  
19 skepticism in a new standard.

20 And then lastly, and I think this also came up in  
21 the discussion today, what could the staff do to further  
22 address significant measurement uncertainty?

1           And with that, I'll just open the floor to SAG  
2 members, if you have any views on the needs for standard  
3 setting that I just covered.

4           All right, Tom Selling?

5           MR. SELLING: Thanks, Barbara.

6           I was happy to see in the previous session that we  
7 had a presentation in oil and gas because it represents, I  
8 think, a very interesting case study when we're thinking  
9 about estimates in general.

10          That's because for most of the oil and gas  
11 estimates, management can produce the numbers in a filing,  
12 but on the other hand, unlike the auditing rules that we  
13 have, management also has the option to outsource that  
14 information content to a specialist.

15          Another interesting contrast I think is that  
16 although auditors perform limited procedures on the oil and  
17 gas disclosures, that information isn't audited either.

18          So it's an interesting case study, and specifically,  
19 if you look at AU 328 Paragraph 4, it states that  
20 management must be responsible for making the fair value  
21 measurements and the disclosures included in the financial  
22 statements.

1           I think this is interesting because the PCAOB owns  
2           this language, that unlike other disclosures in a filing, I  
3           am not aware of the securities laws that explicitly state  
4           that management is responsible for the numbers.

5           Management does have specific responsibilities for  
6           financial reporting in the securities laws, and I'm not a  
7           lawyer here, and so I fully expect John White to be  
8           responding pretty soon about this, but to my mind, this  
9           particular provision in Paragraph 4 that we see in 328 and  
10          we see in similar places imposes additional requirements  
11          over and above the securities laws.

12          My point is that this is not immutable, that it's  
13          not something that's given to us from the outside. And  
14          it's possible to rewrite that paragraph such that, like oil  
15          and gas, we can give the preparer an option, that the  
16          preparer can either obtain an estimate from an independent  
17          specialist or not, and if a preparer -- and particularly  
18          with respect -- and the reason why I'm focusing on 328 is  
19          because I think fair value estimates are a good place to  
20          start rather than talking about estimates in general, but  
21          given that there are evaluation experts out there, this  
22          would be a good place to start.



1           And perhaps when that's the case, then if the fair  
2 value estimate is outsourced, that triggers one certain  
3 type of level of audit responsibilities and procedures.  
4 When it's insourced, then we have the traditional  
5 specifications, which are already in 328, and to my mind  
6 are perfectly adequate -- I shouldn't say perfectly  
7 adequate, but to my mind are what you would expect in that  
8 regard.

9           And on top of that, perhaps when it's material,  
10 either the audit report or the notes to the financial  
11 statements could provide appropriate disclosures when an  
12 independent specialist is elected.

13           Now, my remarks are, I think, a little bit forward-  
14 looking here because I think we'd all agree that everything  
15 here has to be predicated on what we talked about before,  
16 that there has to be an environment where there is a proper  
17 specialist infrastructure, where there are certification  
18 and independence requirements, so I think that, you know,  
19 moving to what I am talking about here would be highly  
20 incremental, but I believe, and I'd like to encourage the  
21 PCAOB and the SEC to work toward that type of goal.

1           There is nothing in the securities laws that say  
2 management has to produce the numbers. Management has to  
3 disclose the numbers, and they have to have controls over  
4 those disclosures, they have to have disclosure controls  
5 and procedures, but there's nothing that says they actually  
6 have to produce the numbers, and as we move toward more  
7 current evaluations and things like that, I think we ought  
8 to think about or rethink the model.

9           MR. BAUMANN: Just an observation, and I think maybe  
10 securities lawyers at the table might have observations as  
11 well, Tom.

12           I don't think the AU 328 Paragraph 4 was intended to  
13 put any burden on the part of management via auditing  
14 standards, so I think this statement is a reflection, in my  
15 view, of the fact that there are books and records laws  
16 with respect to securities laws for companies to keep  
17 accurate books and records and produce financial statements  
18 that present fairly financial information in conformity  
19 with the accounting framework.

20           So I don't think that sentence states anything other  
21 than what is already required by securities laws, so I  
22 don't know if anybody has any other perspective on that,

1 but on that point, I don't think companies look to our  
2 auditing standards and say there's a new requirement there  
3 for them.

4 MR. SELLING: Well, but by extension, the audit  
5 report then says that management is responsible for the  
6 numbers, and our responsibility is to audit them.

7 And I could be wrong, but I don't believe that comes  
8 out of securities laws. I think that that audit report  
9 language comes out of the auditing standards, and that  
10 language is not immutable. The language could say  
11 management is responsible for most of the numbers, with the  
12 exception of the fair value of our loan portfolio.

13 MR. BAUMANN: Loretta Cangaliosi?

14 MS. CANGALIOSI: Yes, I just feel compelled to  
15 respond to that. Stop laughing, Larry.

16 (Laughter.)

17 MS. CANGALIOSI: But, you know, management is  
18 responsible for the entire financial statements: the  
19 footnotes, the entire thing, okay? And we take  
20 responsibility for it.

21 The fact that we hire a specialist, again, my first  
22 comments were that that's not a throw-it-over-the-wall

1 exercise. It isn't as if I hire a specialist and I tell  
2 him go out and do this. I am involved in that, and it's my  
3 responsibility to not only understand the inputs and help  
4 provide the inputs, but to understand the outputs of that  
5 specialist.

6 I can't outsource, and I never can outsource, my  
7 responsibilities for the financial statements or the  
8 internal controls. I don't know any company that operates  
9 on a different standard than that. Wally, do you have any  
10 thoughts? No.

11 So I guess I feel like I own those financial  
12 statements, so when they go out, it's my name that's on  
13 those financial statements, and I need to make sure that I  
14 am comfortable with what has been put in, even by a  
15 specialist, because they are mine.

16 MR. SELLING: I would say that's because the audit  
17 standards say that you need to own those financial  
18 statements, otherwise we're not going to audit them. And  
19 you are describing what is. I am describing what can be,  
20 and what can be without an Act of Congress.

21 You may disagree with what my vision is, and you may  
22 think that we are in the best of all possible worlds that

1 way, but I think there is a lot of evidence to indicate  
2 that it's not working too well as the need for management's  
3 estimates increase.

4 MR. BAUMANN: Bruce Webb?

5 MR. WEBB: Well, I 100 percent agree with Loretta  
6 that irrespective of their use of a specialist, management  
7 is fully responsible for the financial statements, just as,  
8 irrespective of their use of specialists, the auditor is  
9 fully responsible for the opinion expressed on those  
10 financial statements.

11 MR. BAUMANN: Thank you.

12 Harrison Greene?

13 MR. GREENE: I am not an expert on the securities  
14 laws, but I know in every 10-K, there is usually a  
15 certification by management that they take responsibility  
16 for the financial statements and preparation of the  
17 financial statements, internal controls and everything, and  
18 those sorts of things, and particularly with our fiduciary  
19 rules, there is a requirement that management is  
20 responsible.

21 They have to do a statement of responsibilities in  
22 their annual reports to us that they're responsible for the

1 preparation of the financial statements in accordance with  
2 GAAP, that they have to have internal control structures  
3 set forth, they're responsible for all that.

4 The auditor is only opining on those financial  
5 statements that are prepared by management, so they're  
6 management's sole responsibility for the preparation and  
7 the content of those financial statements and notes.

8 MR. BAUMANN: I'd like to get Barbara back, more on  
9 topic on the subject of auditing estimates in our project.  
10 Ken, unless you had something more you wanted to -- ?

11 MR. GOLDMAN: I remind those that are involved with  
12 public companies' CFOs, just think of your management rep  
13 letter that you signed, which goes, it used to be 5 or 10  
14 pages, probably 20 pages long, which does clearly lay out  
15 all the responsibilities that I think we all feel we do own  
16 and control.

17 I could not agree more with the comment. I have  
18 always felt there are certain things you cannot outsource.  
19 One of those is the accounting and the sanctity of the  
20 accounting numbers and the planning, and so I am very much  
21 in favor of that and the responsibility thereon.

1           One of the things, I think the other point I did  
2   want to make though is, you know, there are some things I  
3   think we go about on the estimates that we put in our  
4   filings which frankly I am not always sure, it would be  
5   interesting to have a discussion here with some of the, you  
6   know, users and not the preparers of the statements,  
7   because my sense sometimes is we go through a lot of work  
8   to create some of those estimates, which I am not sure are  
9   used very well, and I'm not sure could be improved.

10           So I hope we get more into how to make that part of  
11   the filings more applicable and more useful, but I think in  
12   terms of ownership of statements and numbers,  
13   certifications thereon, I think that, you know, anyone that  
14   I know that practices in our roles takes those, you know, I  
15   could almost say damn, but certainly extremely seriously.

16           MR. BAUMANN:   Wouldn't your disclosure of critical  
17   accounting estimates help users use the information --

18           MR. GOLDMAN:   I don't know if that's true.   I would  
19   like to test that, because I can't recall ever having an  
20   investor, an analyst, a sell side or buy side ever ask me a  
21   question on that, ever, and so I am glad for someone else

1 to say anything different, but I am not sure, you're  
2 shaking your head, you do or don't get -- ? So we don't.

3 So I am just positing that maybe we could do some  
4 improvement on that section, so again, there's other people  
5 here, maybe a lot smarter -- I am sure a lot smarter than I  
6 am on that, but I just know, when I talk to investors, I  
7 don't get questions on that. I get a lot of questions on  
8 MD&A and a lot of other things, but that is one area I  
9 can't think of the last time I got a question on it,  
10 honestly.

11 Oh, one other thing. And just to put a, you know, a  
12 bullet point on the importance of the management rep letter  
13 and why we do own responsibility, is I do remember there's  
14 some folks that when things are incorrect there, that's, in  
15 theory, you're lying to the SEC. That's the law as I  
16 understand it.

17 So that management rep letter and everything you do  
18 to make sure those numbers are correct, you own.

19 MR. BAUMANN: All right. Bill Platt?

20 MR. PLATT: Okay, and Barbara, I am going to try to  
21 pull it back to the question you asked when you started  
22 with us, so back to a different topic, but related.



1           You know, you talked about, in the feedback process,  
2           you identified that additional consideration would be given  
3           to incorporating more on professional skepticism and then  
4           management uncertainty. And I would be supportive of both  
5           of those concepts.

6           You know, I often think in standard setting, we silo  
7           our activities into what the activity is, estimates, and we  
8           don't think holistically enough about it, and I think, if  
9           you were to look at, for example, and not to bring up a  
10          sore subject that Bob raised this morning, but internal  
11          controls, you would see a lot of audit deficiencies in the  
12          area of internal controls related to management estimates  
13          and the controls around management estimates.

14          And so I would think that if we were going to do a  
15          standard, you would at least more than just say AS 5 is out  
16          there, go follow it. Use it as an opportunity to clarify  
17          what expectations might be, what performance might be, and  
18          the like.

19          And so the more you can take concepts like  
20          skepticism, controls, and look at it holistically in a  
21          standard so when an auditor goes to it, they can kind of,

1 if they're auditing in that area, think about it broadly, I  
2 think would be helpful.

3 MS. VANICH: Well, thank you, Bill. Bob Herz?

4 MR. HERZ: Yes, not the same point as Tom's, but it  
5 did remind me of, you know, Level 1 fair value estimates,  
6 they're traded, they're quoted, you can look them up and  
7 all that. Level 3 requires a lot of work and assumptions  
8 and expertise and all that.

9 But there is kind of the stuff in between.  
10 Sometimes it's Level 2, you know, where there's pricing  
11 services, and for whole swaths of classes of assets, they  
12 have fairly uniform methodologies.

13 And I think I probably raised this in the session  
14 last October, but would a service bureau type approach kind  
15 of work there in terms of a structural solution for, you  
16 know, that might be more efficient across the system,  
17 versus every audit firm have to go to each one and, you  
18 know, and all that, and it might encourage, you know, Race  
19 to the Top in terms of some of those, you know, if in fact  
20 they have to be quality outfits and all of that and  
21 independent and that, you know.

1           I can't remember the lady's name over there --  
2       Susan, yes, I was impressed with what she had to say about  
3       Harvest and all that, and I'm not sure why every firm and  
4       every engagement team needs to reduplicate the effort.

5           MS. VANICH:   Okay, thanks.   Thank you, Bob.

6           Now I want to focus briefly on some areas where, as  
7       I mentioned earlier, the staff feels fairly confident that  
8       we're nearing being able to make a recommendation to the  
9       Board.

10          So the single-standard approach, which was discussed  
11       in the staff consultation paper, under that approach, the  
12       staff would draft a recommendation to the Board, a single  
13       standard that addressed auditing accounting estimates and  
14       fair value measurements.

15          Today, just by review, we have auditing accounting  
16       estimates, AU Section 342, we have a standard on fair value  
17       measurements, AU Section 328, and then we also have some  
18       valuation guidance in AU Section 332.

19          A number of commenters, including auditors, thought  
20       that developing a single standard to address both estimates  
21       and fair value measurements would have advantages.   I will  
22       mention that not all commenters agreed.

1           However, the commenters that did not agree,  
2           generally their comments focused on the difference between  
3           fair value measurements and other types of estimates rather  
4           than on how the audit approach would differ. The IAASB and  
5           AICPA have one standard that addresses both fair value  
6           measurements and estimates. Commenters who were not  
7           supportive of a single standard did not attribute their  
8           views to any issues with those standards, and so the staff  
9           feels fairly strongly that that is a good recommendation  
10          for the Board.

11          Another point is that the further integration with  
12          risk assessment, and I think this is consistent with some  
13          of the discussion we had earlier that standards should be  
14          risk-based and audit attention should be focused where more  
15          risk of material misstatement lies.

16          In the staff's view, a potential new standard that's  
17          further integrated with the risk assessment standards would  
18          help auditors improve their overall risk assessment and the  
19          responses to the risk of material misstatement, including  
20          risks associated with estimates and fair value  
21          measurements.

1           This view was discussed in the staff consultation  
2 paper. In the staff consultation paper, we had included  
3 several potential amendments that would be made to the risk  
4 assessment standards. Commenters generally agreed. Some  
5 gave us some editorial suggestions which the staff is  
6 certainly going to consider, but there was general support  
7 around further aligning the standard with risk assessment,  
8 and we're certainly interested in SAG members' views on  
9 additional ways we can further integrate the standard.

10           The staff is also considering, though, that some  
11 commenters said having information or requirements about  
12 assessing risk within the standard on estimates and fair  
13 value measurements would be helpful, and so I guess as  
14 maybe a way of handling both comments, we've thought about  
15 just including maybe placeholders or some explanatory  
16 material to help auditors understand how this standard  
17 would work with the risk assessment standards.

18           And the last point I want to cover in this session,  
19 or this section, of our discussion this afternoon, is that  
20 in the staff's view a new standard would retain the three  
21 existing approaches for testing estimates and fair value  
22 measurements subject to certain refinements.

1           These approaches are included today in both AU  
2           Section 342 and AU Section 328, and that partially is the  
3           reason why we think that a single standard is a very good  
4           recommendation for the Board.

5           The staff has not seen evidence that these  
6           approaches are flawed. When I talk about refinements to  
7           the existing requirements, those refinements would include  
8           changes to emphasize skepticism and would also include  
9           taking maybe the existing requirements, but making sure  
10          they're broad enough to apply to both estimates and fair  
11          value measurements.

12          Commenters were broadly supportive of retaining the  
13          common approaches in a new standard, and no new approaches  
14          were suggested.

15          With that, I'd like to again allow SAG members, if  
16          you have any views on these areas, to provide comment.

17          MR. BAUMANN: Tom, is your card up again? If you  
18          want to make a comment, go ahead.

19          MR. SELLING: All right. This will be just 30  
20          seconds.

21          I just want to correct the record that the  
22          certification does not say that the financial statements

1 are the responsibility of management. The certification  
2 says based on my knowledge, the financial statements and  
3 other financial information included in this report fairly  
4 present in all material respects the financial condition,  
5 et cetera, et cetera, for the periods presented in this  
6 report.

7 Then it goes on to talk about its responsibilities  
8 for internal controls over financial reporting and for  
9 disclosure controls and procedures.

10 I was not proposing to change any of that, all I was  
11 proposing is that in the interests of efficiency, that  
12 auditors are better at verification and assessing the  
13 reasonableness of estimates, that there should be some  
14 flexibility given to management to obtain independent  
15 estimates that would be subject to different auditing  
16 standards than estimates that were generated by management.

17 MR. BAUMANN: Thanks. Philip Johnson?

18 MR. JOHNSON: Thank you, Marty.

19 I certainly agree that as Wallace mentioned in the  
20 October 2014 session that one standard is preferable, and  
21 so I do agree with the general direction of the project,  
22 certainly agree with that.

1           But I would raise one cautionary note, and that is  
2       it's always easy to keep adding requirements as commenters  
3       make points, and rarely do we take the matters away. And  
4       so we can get into a situation where I think, as Wallace  
5       mentioned in the last session, in this particular area, we  
6       shouldn't take away judgment, and therefore, having higher-  
7       level principles, I think, are important here so that  
8       practitioners can use the judgment when they're doing  
9       auditing estimates and fair values, because it's not a  
10      precise science.

11           So I would just have that cautionary note, that if  
12      we add too much from what commenters are saying, we could  
13      get into -- ourselves into a straitjacket of dealing with  
14      everything in one particular way.

15           MR. BAUMANN: Right, thanks.

16           We certainly take commenters' points into account  
17      and address them as part of our proposals and releases and  
18      consider which ones we should take and which ones we  
19      comment on that we thought about and just, maybe it's  
20      application guidance or something in the release.

21           Bob Herz?

22           MR. HERZ: You may get to this next as you proceed.



1           But I remember when I was reading the material,  
2           there's something that kind of said that the best evidence  
3           is looking at subsequent events, and I would disagree with  
4           that unless it's like two minutes afterwards, because the  
5           world changes, the facts on which the estimate was based  
6           change, so that doesn't mean you don't look at it and, you  
7           know, the reasonableness is the underlying thing, but be  
8           careful not to reinforce the notion that, you know, as  
9           Loretta said, it's going to turn out to not be that way.  
10          That doesn't mean it wasn't a good estimate at the time.

11           MS. VANICH:   If I could just respond to that, we  
12          weren't suggesting that it's always the best way to audit,  
13          but it certainly in cases can be an effective way to audit  
14          when a subsequent event is relevant.

15           MR. HERZ:     That's got to happen pretty quickly,  
16          though.

17           MS. VANICH:   David Kane?

18           MR. KANE:     Yes, Bob Herz read my mind.

19           We've generally found that the subsequent event, in  
20          and of itself, doesn't constitute sufficient appropriate  
21          audit evidence.   Fair market value and markets change,

1 fluid, so I think it can give you a false sense of security  
2 on that.

3 And it also doesn't appropriately reflect the  
4 measurement uncertainty. So let's just say you had a bond  
5 at 1231 that was, you know, par was 100, and it settled in  
6 February at 100, and there was a 60 percent chance it was  
7 going to pay you, and a 40 percent chance it wasn't.

8 Well, the settlement value ended up being \$100.  
9 That doesn't necessarily mean what the fair value was, and  
10 a market participant would factor in that possibility of a  
11 credit loss. So we see some teams actually placing over-  
12 reliance on that, so I just get a little bit concerned if  
13 you were to kind of reorder it that the inference might be  
14 made that that is actually more, you know, of a reliable  
15 method than some of the others.

16 MR. BAUMANN: Thanks. Good points, in both cases,  
17 but I think we want to think not just for fair value  
18 measures, but remember the project, we're talking about a  
19 single standard for accounting estimates and fair value  
20 measures, and certainly settlement of a lawsuit before the  
21 financial statements goes out is probably better evidence  
22 than whatever estimate legal counsel may have given or

1 management may have come up with as part of their  
2 determination of that lawsuit, so there are probably some  
3 estimates where the subsequent event provides maybe better  
4 evidence than the estimate itself.

5 So I think we will certainly think about that, but I  
6 understand your point on fair value securities compared to  
7 maybe some other estimates, however, where it really is a  
8 confirming event compared to what may have been a rough  
9 estimate of what that settlement cost might have been in a  
10 lawsuit.

11 Sri Ramamoorti?

12 MR. RAMAMOORTI: With respect to the comments on  
13 the three existing approaches, the testing management's  
14 process, developing an independent estimate, and evaluating  
15 subsequent events, I had two kind of thoughts, but this is  
16 more for discussion. You know, I am not myself very sure  
17 where I am going with this, but I think it will be  
18 important.

19 So we talked about sensitivity analysis, but we also  
20 talked about there being kind of a black box, and you know,  
21 we don't really know what's going on, it's beyond our

1       capability as auditors, it's maybe too complex and we're  
2       not trained, whatever.

3               Well, I think it's imperative that we learn and we  
4       continually evolve in terms of our competencies, and we  
5       improve the whole process, and so rather than just conduct  
6       sensitivity analysis, I'd like for us to maybe think about  
7       stress testing these models, and the idea there would be  
8       can we come up with tighter internal estimates with greater  
9       degrees of confidence? Can we do that, and how can we, you  
10      know, move in that direction, at least, over time?

11             And then, maybe even more controversial, back-  
12      testing, which is this business of looking at subsequent  
13      events, and let me take you to the extreme end: Professor  
14      Baruch Lev at New York University has actually talked about  
15      how when you have intangible assets that are really  
16      difficult to value, but as time passes and subsequent  
17      events provide you more information, then yes, now you know  
18      how the modeling should have been done.

19             I don't deny there is hindsight and all that, but  
20      what he says is, how about then going back and just for the  
21      heck of it recalibrate the financial statements to look at,  
22      you know, how would it change?

1           So you're going back now that you know what you  
2       should have known but you didn't because it was, you know,  
3       early in the game.

4           And so the idea of back-testing would really be to  
5       give us a sense of what were the assumptions before the  
6       fact that we made that totally didn't pan out?

7           Some which were impossible to do anything about  
8       because it is such a unique transaction that, you know,  
9       that's it, you know, even future information is not going  
10      to help you in any way.

11          But where future information can let you know  
12      something about the modeling process, if that can help you  
13      learn how to model better, I think that's something we  
14      should absolutely, you know, keep the thing open, I mean  
15      that possibility.

16          And we work with management, and as a profession, we  
17      continue to get better at this. That's really the goal.

18          MR. BAUMANN: Thanks, Sri.

19          Maureen McNichols?

20          MS. MCNICHOLS: So your slides in the document refer  
21      to academic research that supported this preferential  
22      ordering, and I am just curious, I didn't see the citations

1 to those specific studies. They may be in an earlier  
2 document, but I'd be curious to look at those and also  
3 maybe hear just a few comments about the nature of those  
4 studies and how they led to that conclusion.

5 MS. VANICH: Let me respond because I know we're  
6 jumping ahead just a little bit, and actually, maybe what  
7 we could do is just advance the slides and start to cover  
8 this area, because I think people's comments are getting to  
9 this issue.

10 So a number of the alternatives that were included  
11 in the advance material in the slides with respect to how  
12 the staff could emphasize professional skepticism, it  
13 included an explicit requirement for the auditor to  
14 identify which of the assumptions used by management are  
15 significant when testing management's process.

16 That was included in the staff consultation paper,  
17 and commenters were generally acceptant of that  
18 requirement.

19 I'll just jump ahead to answer the question and then  
20 go back, but changing the order of the substantive  
21 approaches, and I think maybe a couple of the comments  
22 related to this. I didn't have the citations in the

1 materials, although we could certainly provide them, and I  
2 think it was at least more than one study, but we've also  
3 heard it talked about at some forums. One way of increasing  
4 skepticism without changing requirements is to present  
5 things in different orders, and I think this got to Bob's  
6 point where putting subsequent events first might not be  
7 the best alternative.

8 But to do this alternative would not involve  
9 increasing requirements, it was just the general  
10 presentation. So I don't know if anyone else has a view on  
11 that.

12 MR. HERZ: I think there is a good point there that  
13 the other comment brought up.

14 I mean, I think about the loss development triangles  
15 that are disclosed for insurance companies, which is kind  
16 of what, you know -- what it does, it does help you  
17 understand management's ability to model and forecast, you  
18 know, some of that at least. It does give you some of  
19 that.

20 But what it doesn't tell you exactly is whether the  
21 estimate at that point in time, you know, was the best  
22 number or not, because there is new information.

1           But I think they're related, but there's a slightly  
2           different purpose. Now that auditor skepticism, to kind of  
3           look at the track record, you know, their track record in  
4           predicting things and that, but you've got to be careful  
5           again because the world changes.

6           MR. BAUMANN: I agree with that point, but looking  
7           at track records is a valuable piece of information as  
8           well. But those are all good points.

9           Phil Santarelli?

10          MR. SANTARELLI: Thanks Marty.

11          I do -- I wanted, as an auditor, I wanted to react  
12          to Sri's comments just a bit, and I think it piggybacks on  
13          what Bob just said.

14          But the -- when I think about testing management's  
15          process, I don't think solely with respect to what's in the  
16          black box, if there is in fact a black box. What I think  
17          about is how management is dealing with the black box,  
18          because I believe that's a big part of internal control  
19          over financial reporting: how capable is management of  
20          knowing how the estimates are developed? I think Loretta,  
21          you spoke to this a little bit before.



1           And the concept of back-testing and backward-  
2 looking, we've used that for years, and a very common area  
3 is with respect to percentage of completion accounting,  
4 when you're auditing that.

5           The thing is that is a build-up of information about  
6 the capabilities of management and their estimation  
7 process. It is not necessarily a discrete piece of  
8 information within an audit period, and it takes time to  
9 build that up.

10          So you get a history, you get a confidence with a  
11 particular system and process that management is using. I  
12 think the standard should enable you to draw on that, much  
13 as you do in AS 5 and so forth, your knowledge of what they  
14 did in the past may inform your risk assessments, et  
15 cetera.

16          But because of the constraints of financial  
17 reporting, there is just, in many cases, it's impossible to  
18 do in a tight window. So it builds up over a period of time  
19 and you become more confident, with Bob's caveat that the  
20 world changes, including people changing and processes  
21 changing. It is up to the auditors to note that, you know,  
22 if something has happened.

1           And from the skepticism standpoint, a change in  
2     management's process has to -- has to put a red flag up,  
3     you know? You did it this way for five years, what  
4     happened? What happened in your world that caused you to  
5     question that methodology, because it in fact had been  
6     pretty effective?

7           So I think that's a skepticism-type thing, so -- .

8           MR. BAUMANN: Thanks, Phil.

9           Jouky Chang.

10          MR. CHANG: Thanks, Marty.

11          And I thought I'd share a little bit with the group  
12     here about how we, when we're engaged on valuation  
13     engagements, how we deal with sort of this question of  
14     doing the work post the actual transaction date, if you  
15     will.

16          Because a lot of what we do is beyond the date of --  
17     of the, you know, whether it's the transaction, the  
18     business combination that's happened, or we're doing a --  
19     for example, a goodwill impairment analysis, it's generally  
20     beyond the actual testing date.

21          So the question we always ask ourselves is, you  
22     know, what type of information is knowable or known as of

1 the date of our valuation, and what we end up assessing is,  
2 you know, if there is a subsequent confirming event,  
3 subsequent event that confirms the outcome while we're  
4 still performing our analysis, is should we have known that  
5 information? Should we have known about that, you know,  
6 how the value would have played out when we were doing our  
7 work?

8 So it allows us to sort of -- so we don't accept it  
9 blindly, right? Just because the trade happens two weeks  
10 after our valuation date, we don't accept that blindly and  
11 say hey, we should really be marking it 107 instead of 105.

12 We really look at was there even any transaction  
13 being contemplated? Was there negotiations, for example,  
14 for this sale as of the valuation date, such that we can  
15 then decide whether or not -- is it a change in market  
16 conditions that led the value to move, or is it merely  
17 information that we should have known, but it just wasn't  
18 really concretely set forth?

19 Another context of it is, for example, maybe take it  
20 to more of an intangible asset world, is we're trying to  
21 value -- one asset we value very frequently is customer  
22 relationships, right?

1           And as of the valuation date, the company may be  
2 engaged in substantive discussions with a customer on  
3 either renegotiating the terms or expanding or contracting  
4 the relationship that they have.

5           That's important information to filter into our  
6 analysis if it is known -- if it's completed, that  
7 negotiation or that discussion is completed, so that we're  
8 narrowing what the potential outcome might be, because that  
9 is relevant, rather than ignoring that just because it is  
10 done a couple weeks later, or a few -- or a month later.

11           So I just wanted to share that with you on that.

12           And in the other context of when we're -- for  
13 example, when we're assisting, you know, private equity  
14 firms and hedge funds on the marking of their quarterly  
15 investment portfolio, that -- the whole back-testing and  
16 calibrating our models, that certainly happens all the  
17 time, right?

18           So when there is a trade that happens after the  
19 quarter ends -- after that year ends, we do look at it and  
20 say how can we improve our model, how can we -- you know,  
21 what -- does it confirm the model that we're using or the  
22 input that we're using, and if it doesn't, why not?

1           And we look, and we then apply that prospectively.

2           MR. BAUMANN:   Sri, is your card back up?

3           MR. RAMAMOORTI:   Yes. All right. Jouky's comments  
4           reminded me of February 12th, 2002, when former Secretary  
5           of Defense Donald Rumsfeld waxed poetic and gave us the  
6           beautiful known knowns, known unknowns, and unknown  
7           unknowns logic, which I just find very impressive, and it  
8           is, because the Boeing Corporation uses the unknown  
9           unknowns, calling it unk-unks.

10           So this is actually not a bad way for us to perhaps  
11           get auditors thinking about variables that are there,  
12           aren't there, should be there, and, you know, how do you go  
13           about modeling them, and how do you think about it?

14           So it is a nice methodology, so it sounds silly, but  
15           it actually is profound.

16           MS. VANICH:   I don't see any more tent cards up, so  
17           I do want to back up just a little bit because I don't want  
18           to slight some of the alternatives that we'd like to get  
19           your input on.

20           So with respect to emphasizing professional  
21           skepticism in a new standard, as I mentioned, one of the  
22           ideas put forth in the staff consultation paper was to have

1 the auditor identify when the auditor has decided to test  
2 management's process of the assumptions used by management  
3 which are significant for testing.

4 It wouldn't require the auditor to identify  
5 assumptions not used by management, but rather just to  
6 start with management's assumptions to determine what the  
7 auditor would test.

8 Another alternative, and I think with respect to the  
9 alternatives we're going to talk about for skepticism,  
10 these alternatives could be done all in a new standard, and  
11 in some other places where we'll talk about alternatives,  
12 one alternative might replace another, but these would be  
13 things that would be relatively easy to do and work  
14 together.

15 A point we heard, and I believe this was discussed  
16 back in the October SAG, was to revise terminology to  
17 establish a mindset of professional skepticism, and that  
18 would include removing, for example, words like  
19 "corroborating management's estimate." It wouldn't change  
20 the requirement, but we'd just use a word that might lend  
21 itself more to being skeptical, like "to evaluate against  
22 management's estimate."

1           The staff has also considered including reminders in  
2           a new standard about the auditor's existing responsibility  
3           to exercise skepticism. It wouldn't seek to change the  
4           auditor's responsibility for exercising skepticism, but  
5           rather to reference those requirements to add emphasis, and  
6           I think that may be consistent with the comment we heard  
7           earlier that that often carries some weight.

8           Let me go through these last three, and then I am  
9           going to open it again for comment.

10          Another alternative that we're looking at is to  
11          emphasize the auditor's existing responsibility to consider  
12          relevant audit evidence, whether it corroborates or  
13          contradicts management's assertions. The risk assessment  
14          standards already require the auditor to consider the audit  
15          evidence obtained, whether it corroborates or contradicts  
16          management's assertions, so again, this is not suggesting a  
17          new requirement but would remind the auditor of the  
18          existing requirements.

19          We've also thought about extending the requirements  
20          for the fraud discussion in the risk assessment standards  
21          to more specifically address estimates and fair value  
22          measurements. Auditing Standard Number 12 includes

1 requirements related to having a discussion from a -- with  
2 the key engagement team members about the potential for  
3 material misstatements due to fraud, sometimes referred to  
4 as a brainstorming session.

5 This discussion could often likely include a  
6 discussion that relates to estimates and fair value  
7 measurements. However, the staff is considering whether it  
8 would be beneficial to just more specifically identify  
9 measurements and -- fair value measurements and estimates  
10 as something that would be important to consider in that  
11 discussion.

12 And then the last alternative that we included in  
13 the materials was something I think we've already covered,  
14 just related to this concept of preferential ordering.

15 And so, again, I do see some tent cards, so I am  
16 going to open back up the floor for any comments on these  
17 alternatives, also any other alternatives you might think  
18 that we could consider about skepticism. Also interested  
19 in whether any of the auditors have a view on maybe any  
20 issues in practice that would arise as a result of the  
21 alternatives we talked about.



1           MR. BAUMANN: I think this really was a pervasive  
2 comment in October from the -- when we had the full-day  
3 meeting on this standard about the need to really build  
4 professional skepticism into this particular standard when  
5 you're talking about estimates and fair value measures, so  
6 this is an important discussion for us about how to do  
7 that, and your comments about whether or not you think we  
8 have it right here, or there are other things we should be  
9 doing, are very important to us.

10           So Jon Lukomnik?

11           MR. LUKOMNIK: Thank you.

12           I think it's a -- it's a wonderful list. I do have  
13 one question.

14           As you point out, your requirement is for the  
15 auditor to identify which of the assumptions used by  
16 management, and you specifically said we're not asking them  
17 to consider assumptions not used by management, and I go  
18 back to sort of what Jouky said earlier about why do you do  
19 things as well, because if you start with what's already on  
20 the paper, you may miss the most significant assumptions.

21           So for instance, on financial instruments, there is  
22 virtually always the assumption that there is liquidity in

1 the marketplace, right? Usually, that is what gets people  
2 into problems, but it is not one that would be an explicit  
3 management assumption.

4 When you talk this way, I assume what you mean are  
5 the inputs that go into it, not the contextual assumptions  
6 that matter, and so my question would be -- and if you're  
7 talking about legal reserves, you're assuming that current  
8 case law doesn't change between the time of the estimate  
9 and the time of the report.

10 Having valued those things, it often does change for  
11 active cases. There are intermediate judicial rulings.

12 So my question is why would you specifically exclude  
13 sort of the context in which the assumptions are made which  
14 allow the assumptions to work?

15 MS. VANICH: All right, that's an excellent point,  
16 and sometimes it's difficult to talk about these  
17 alternatives without using too many words.

18 But as I mentioned earlier, the staff would seek to  
19 retain the three existing approaches, one of which includes  
20 testing management's process.

21 So in the case where the auditor has decided to test  
22 management's process, the staff asked questions about

1       whether the auditor should look to assumptions other than  
2       the ones used by management or start with the ones used by  
3       management with the auditor selecting which ones to test.

4               The staff, based on review of the comments and I  
5       think other outreach, felt that to go beyond what  
6       management used in an estimate when testing management's  
7       process probably started to feel like you weren't testing  
8       management's process.

9               When we get to talking about measurement  
10       uncertainty, we do have some suggestions that would -- that  
11       could potentially require the auditor to look at  
12       management's process for how management has considered  
13       alternative assumptions.

14              When developing an independent estimate, though, the  
15       auditor would certainly be able to consider developing  
16       their own assumptions. I hope that answers your question.

17              MR. LUKOMNIK:       It does, and it's perfectly  
18       reasonable.

19              I'll just go back to something that Bill Platt said  
20       earlier that we sometimes look at things siloed, and that I  
21       would hope that as you wordsmith this, because that's  
22       really what we're talking about, this doesn't come to be

1       seen as an overall limitation, because clearly, those are  
2       the places usually -- or often are places where people get  
3       into trouble, where the -- the methodology for the  
4       estimation doesn't work anymore because the oxygen that  
5       enables it to breathe has somehow been taken away.

6               So I thank you, it makes perfect sense the way you  
7       explained it, but I would hope you'd look at it  
8       holistically as you write the entire standard.

9               MR. BAUMANN: Did you have a follow-on to that?

10              MR. HERZ: Yeah. I think in this area of  
11       professional skepticism, just kind of as an audit committee  
12       member, I always ask the auditors about consistency, you  
13       know, in the approaches used by management over time, or if  
14       they change, you know, why did it change, and, you know, is  
15       there a good reason for changing that?

16              And in terms of the inputs and ranges of inputs,  
17       that there is no overt bias from period to period, you  
18       know, the kind of similar place in the fairway each time.

19              MR. BAUMANN: And sometimes, if it didn't change,  
20       why didn't it change, right?

21              Guy Jubb? I am sorry -- Tom -- well, Tom Selling  
22       and Guy Jubb.

1           MR. SELLING: I want to briefly follow up on Sri's  
2 observation about unknown unknowns, because I think it  
3 really helps to make the point I was trying to make earlier  
4 to this highly resistant audience.

5           (Laughter.)

6           MR. SELLING: Unk-unks are factors that are present  
7 in a great many audit estimates. How good are management  
8 or anyone's forecasts of the negotiations between the EU  
9 and the Greek government going to turn out? What if the  
10 Greek government goes off the Euro?

11           What about estimates of future technologies? And  
12 very close to home now, what about lifetime estimates of  
13 credit losses as of the date that a loan is originated?

14           These are often the most critical accounting  
15 estimates we would make, yet I would submit they are  
16 inherently un-auditable. And yet auditors have to  
17 eventually conclude, according to the standards, that  
18 somehow these estimates, these unk-unks, are somehow  
19 reasonably made, and they have to associate themselves with  
20 those estimates, just as they associate themselves with the  
21 verification of inventory quantities.

1           It's -- you know, it strikes me as very -- very  
2           unbalanced.

3           And it's a frightening prospect when the unk-unk  
4           actually occurs. It doesn't reflect well on auditors. It  
5           doesn't reflect well on regulators or accounting standards  
6           setters.

7           I think we have enough history to know that this is  
8           a scenario that we as a group in the PCAOB should be  
9           working to avoid, and I don't believe that incremental  
10          changes to audit procedures to help auditors get more  
11          comfortable with the reasonableness of unk-unk estimates is  
12          going to help.

13          MR. BAUMANN: I think that's an excellent comment.  
14          Certainly there has been some research and studies from The  
15          American Assembly over time that talked about the fact that  
16          there is variable assurance, if you will, on cash compared  
17          to inventory quantities compared to some of these estimates  
18          that are hopefully auditable that have a great degree of  
19          estimation uncertainty, and there isn't a clear  
20          distinguishment in terms of the audit report in terms of  
21          that.

1           I do hope that critical audit matters communications  
2     can help in that regard, and I think the U.K. experience is  
3     indicating that auditors can communicate it through an  
4     audit report with CAMs, those more difficult, subjective,  
5     complex matters with greater risk of material misstatement,  
6     and give differential reporting through the audit report.

7           At the end of the day, they have to make sure that  
8     they're giving an opinion that they include in the  
9     financial statements, present fairly, but the CAM is going  
10    to at least give the reader that yeah, there was different  
11    risks of material misstatement in the various elements to  
12    which you were talking about and with respect to these  
13    various different estimates, so I appreciate that point.

14           Bill, did you have a follow-on to that? It looked  
15    like your card jumped up --

16           MR. PLATT: Yeah, I just had a follow-on that, you  
17    know, I think you have to take a step back and say what are  
18    we trying to measure in the financial statements?

19           So you take the example you have about what is going  
20    to happen with Greece and the EU and Greek debt and  
21    everything else, and I don't think that accounting is -- is

1 to predict exactly what is going to happen and then reflect  
2 that in your financial statements today.

3 What the accounting today in measuring something is  
4 what are the current market participants thinking about  
5 that situation?

6 So for example, if market participants said, you  
7 know what, there should be a 30 percent discount, you know,  
8 it should be valued at 70 percent on the dollar, but you  
9 really were perfect in predicting, and say you know, this  
10 thing is all going to get worked out, we think it's really  
11 worth 95 cents, even though you're perfect in your  
12 prediction, you would not be justified in recording at 95  
13 cents even if you can prove to me that you were right and  
14 market participants were wrong today.

15 So I think it's a little misleading to think about  
16 we're always trying to predict the future with certainty.  
17 What we're trying to do is to assess what do market  
18 participants today believe about the future, how they  
19 reflect that in their valuations?

20 MR. SELLING: I agree with that 100 percent, and  
21 that is why I support current value estimates, because I



1 think that is the only aspect of what market participants  
2 are thinking that we are capable of -- of estimating.

3 MR. BAUMANN: Thanks.

4 Guy Jubb?

5 MR. JUBB: I welcome the move away from the word  
6 "corroborate," and you mentioned, Barbara, the substitution  
7 perhaps of the word to "evaluate."

8 And that is a small and useful step in the right  
9 direction, but I do, as an investor, suggest that it  
10 probably doesn't go far enough in terms of what  
11 shareholders are expecting of auditors.

12 And I would like to see the word to evaluate and  
13 challenge. We have had, we have referred to it several  
14 times today, the benefit of the enhanced auditor reporting  
15 in the United Kingdom, and it is very interesting when  
16 reading these, and it may be therefore a source of some  
17 information for the PCAOB, to look at the words which are  
18 used by the individual audit firms.

19 I mentioned Royal Dutch Shell earlier today in a  
20 particular light, but in relation to estimation of  
21 decommissioning provisions, they say, this is the auditors,  
22 "We critically appraised management's account appraisal."

1           And that has a degree of granularity that goes  
2 beyond just valuation, and as shareholders, I think that  
3 consideration of just adding those -- something beyond  
4 valuation would be a very, very useful step.

5           Thank you.

6           MR. BAUMANN: Thank you, Guy.

7           Phil Santarelli?

8           MR. SANTARELLI: Yeah, just briefly.

9           I wanted to, as an auditor, say that we would agree  
10 with enhanced guidance as far as auditor skepticism. I  
11 think that's appropriate to put into the standards in more  
12 than one spot.

13           With respect to the explicit requirements to  
14 identify which assumptions used by management are  
15 significant, I don't think we should take it to a situation  
16 where the auditors need to develop their own assumptions to  
17 match up against, but rather, have a process where they  
18 would inquire of management diligently as to assumptions  
19 that were considered and rejected and then try to, from the  
20 standpoint of skepticism, say why were they thrown out?

21           That's a little bit I think what Bob was getting at  
22 from that bias that comes into it, and where in fact they

1        had, you know, if you can get transparent enough, they had  
2        the, you know, point A and point B and split it or took B  
3        because it was higher, and that's part of bias, and we  
4        really need to evaluate that as part of the fraud  
5        assessments, so -- .

6                MR. BAUMANN:    Good, I think that's -- I think that's  
7        where we're headed, and we appreciate that support.

8                Sri?

9                MR. RAMAMOORTI:    Marty and Barbara, I am teaching a  
10       graduate course in forensic accounting this semester, so  
11       obviously, I have been looking at a lot of references.

12               So I came across one, don't know what's the formal  
13       procedure to introduce books and other references into this  
14       August discussion, but you folks are happy to take a look  
15       at it, it's called Fair Value Accounting Fraud, so I think  
16       it's highly relevant that, you know, you should at least  
17       take a look.    I am happy to leave this copy with you, so --  
18       .

19               MS. VANICH:    Okay.    You'll notice that the topics  
20       don't get easier, but I know that everyone wants to leave  
21       on time, so I am sure that everybody is going to give us  
22       some great input.

1           The next topic that we want to talk about is  
2     addressing significant measurement uncertainty, and I think  
3     it also was discussed briefly earlier today, that you can't  
4     have a discussion about estimates and fair value  
5     measurements without talking about it.

6           Several commenters suggested that a new standard  
7     should further address significant measurement uncertainty,  
8     and the staff has carefully considered these comments along  
9     with some relevant academic research.

10          Significant measurement uncertainty is inherent in  
11     certain accounting estimates, including for example  
12     contingent liabilities, environmental remediation  
13     liabilities, Level 3 securities, the allowance for loan  
14     losses.

15          But with that said, and I think Marty has probably  
16     covered it earlier, the auditor's role is to determine  
17     whether there is a misstatement, not to eliminate  
18     measurement uncertainty, and there's certainly procedures  
19     that need to be performed, and the auditor needs to  
20     consider available evidence and evaluate whether there is a  
21     reasonable range and points on that range.

1           And so the staff is very carefully weighing what  
2           would be an appropriate response to include in a new  
3           standard that would increase audit quality and reduce the  
4           risk of material misstatement, but not increase maybe an  
5           expectations gap, like I think we heard earlier.

6           So the potential alternatives include, the first was  
7           discussed in the staff consultation paper, amending the  
8           risk assessment standards to include factors that may be  
9           relevant to evaluating the extent of measurement  
10          uncertainty and accounting estimates as discussed.

11          This would supplement and aid the auditor in  
12          determining when a significant risk exists because of  
13          measurement uncertainty.

14          Another alternative, and I briefly touched on this,  
15          was to include a requirement similar to a requirement in  
16          ISA 540, particularly paragraph 15 and 16, to require the  
17          auditor in the case of significant risk or of significant  
18          measurement uncertainty to evaluate how management  
19          considered alternative assumptions or outcomes.

20          Several commenters who raised this issue suggested  
21          including that requirement, and also then if management has  
22          not adequately addressed the effects of estimation

1       uncertainty, the auditor would then need to develop a range  
2       to evaluate the reasonableness of the estimate.

3               A few other alternatives which I think people may  
4       have already touched on would be requirements to test  
5       models when the complexity of the model is giving rise to  
6       the significant risk. I think we heard about today the  
7       black box. It's difficult, auditors may not have access to  
8       it. Those are some of the things we have heard.

9               But at the same time, the model can be very  
10      important to the development of an estimate, and I think we  
11      heard mixed views, so if -- but if people have new views to  
12      add or want to recap what they have said, we're very  
13      interested in hearing it.

14              A few commenters suggested a requirement for the  
15      auditor to perform a sensitivity analysis, but at the same  
16      time, some of those commenters acknowledged that that might  
17      be very difficult for the auditor to do.

18              And the last alternative that we included would be  
19      to require communication of estimates with significant  
20      measurement uncertainty as an audit committee  
21      communication.

1           What I'd say here is I would think that given the  
2 existing requirements to communicate matters to the audit  
3 committee that these estimates are likely already being  
4 discussed, probably in a very detailed way, so maybe when  
5 you give us your views, if there's some nuance that you  
6 think would be valuable to add, we certainly want to be  
7 prudent and aware of audit committee's time. It is  
8 valuable, and they already have a lot to get through, so  
9 not just looking to add requirements.

10           And the last alternative would be to take on some  
11 element of reporting in this standard that would address  
12 significant measurement uncertainty, having the auditor  
13 make some type of communication. This certainly could  
14 potentially overlap with our project on the auditor's  
15 reporting model.

16           And so with that, I'd again like to open the floor  
17 to SAG members. So Bruce?

18           MR. WEBB: Thank you, Barbara. That is quite a lot.

19           Clearly, I think, you know, amending AS 12 to  
20 include factors that might be relevant to weighing the  
21 extent of measurement uncertainty makes sense. Certainly,  
22 no objection to including a requirement to evaluate how

1 management considered alternative assumptions, similar to  
2 ISA 540.

3 I think when you move into some of the other  
4 specific proposals there, while I think, you know, in most  
5 cases, when you're talking about a significant estimate  
6 with significant measurement uncertainty, you're talking  
7 about a significant risk, and you're probably talking about  
8 a fraud risk.

9 So I would think that most auditors would do exactly  
10 what you're talking about here, yet to throw specific  
11 requirements in in all cases causes me some pause.

12 Similarly, I would think most of the time, those  
13 estimates would be already included in audit committee  
14 communications, and would therefore be a source for -- for  
15 critical audit matters that you're covering in the auditor  
16 reporting model project. I don't think I'd want to have a  
17 separate disclosure requirement in this standard, but would  
18 want that to be subsumed in CAM.

19 MR. BAUMANN: David Kane?

20 MR. KANE: Yeah, just a couple brief points.

21 I think even when the valuation guys are coming up  
22 with a corroborative or point estimate, sometimes they are



1 concluding that it's within a reasonable range, but they're  
2 not necessarily identifying what that entire range is.

3 So I think that is a subtle but important difference  
4 if this were to be required in terms of developing a range.  
5 That would require a little bit more work, I think, is one.

6 Two, I think in terms of the testing, it depends on  
7 what you mean by testing the model. So the points we  
8 talked about this morning in terms of the level of detail  
9 that you have to get into. Is it really the inputs? Is it  
10 looking at the model assumptions? Or is it really looking  
11 at the granularity within the model?

12 The last piece in just thinking about this and  
13 requiring a sensitivity analysis, I could see this becoming  
14 more challenging particularly when you test management's  
15 process.

16 So let's just say for example like the allowance for  
17 loan loss. Would the auditor be required to develop his or  
18 her own estimate of what that range might be?

19 And I think to Bill's point a little bit earlier,  
20 it's easier in a fair value construct when you're thinking  
21 of market participant assumptions, but it can be a little  
22 bit more challenging when you're thinking about

1       corroborative or contrary evidence, particularly where we  
2       may be going on certain estimates.

3               So let's say like the allowance for loan loss, where  
4       the FASB is going, in terms of the current estimate of  
5       credit losses. You might have one bank that thinks we're  
6       going to fall off a cliff, another bank that might think  
7       we're actually going to do well, and they could have the  
8       same loan but have very different estimates of what that  
9       allowance might look like and be considering, you know,  
10      whether corroborative or contrary.

11             So how would auditors be thinking about that when  
12      similarly trying to develop a sensitivity for a range?

13             MS. VANICH: Those were all excellent points, and if  
14      I could just respond because I would also be interested in  
15      views.

16             I mean, I think that what is valuable for us to hear  
17      in this -- in this discussion today is some of the  
18      practical issues that could arise if we were to move  
19      forward with recommending some of these alternatives.

20             I think that when we've heard about models, and I am  
21      looking forward to maybe hearing about this more when -- in  
22      the comment period for the specialist paper, but we've

1 heard in some cases, you know, auditors maybe considering  
2 controls or activities of a model validation process that  
3 issuers may have in place. In other cases, we have heard  
4 that people test the model by perhaps having management run  
5 alternative assumptions through the model, and then they  
6 see if the output behaves in a way that they expect it to  
7 behave.

8 I think we've also heard that another option is to  
9 run management's assumptions through maybe a similar, it  
10 might not be as sophisticated a model as management is  
11 using, but just to get a general idea of whether  
12 management's estimate is reasonable.

13 The other point, I think that when we talked about  
14 potential for including a requirement like ISA paragraphs  
15 15 and 16, I would be very interested if auditors have any  
16 views on how that has worked in practice. I think that by  
17 the -- of all the alternatives we've talked about, that one  
18 probably had the most support from commenters.

19 And I think Bill, you might be next?

20 MR. PLATT: Yeah, I just wanted to maybe ask a  
21 question, and maybe it's an observation in the form of a  
22 question.

1           But, you know, I think that this whole measurement  
2           uncertainty probably causes a lot of people to be confused  
3           or have concerns about the lack of precision of an amount  
4           in a set of statements, and I understand that.

5           But I guess before -- I have a hard time -- before  
6           jumping to what more should the auditor do, I'd really take  
7           a step back and say well what is the objective? What would  
8           you like to get out of an audit that's different than you  
9           get today around this, and then you could evaluate well  
10          what -- are there any procedures we can do that will help  
11          move us in that direction or achieve that objective?

12          But I have a hard time with -- you know, I think at  
13          times, and I realize the staff is not doing this, but I  
14          think at times people think that if we've got an estimate  
15          that has a wide range, even if the company is in the middle  
16          of it, that somehow, by auditing, we can make the range  
17          narrower, and in fact, somebody made a comment before about  
18          having a narrower range and a higher degree of confidence.  
19          I think that is generally not achievable because usually  
20          the higher the degree of confidence, the wider the range  
21          you would get, and vice versa.

1           So, you know, I guess I would -- I would just -- I  
2   don't know if you have an answer to that question now, or I  
3   would encourage you to address it as you go through the  
4   project.

5           MS. VANICH: No, I think that is a good question.

6           I mean, I think that commenters -- and I hate to  
7   speak on behalf of commenters, but maybe they're also  
8   feeling this angst, whether it's angst on the part of  
9   auditors, whether it's angst on behalf of investors, but I  
10   think that enough people raised the issue. In some cases,  
11   I think people would feel better if there were more  
12   disclosures. In other cases, people maybe thought that the  
13   disclosure framework that exists today is adequate, but  
14   really making sure that you're evaluating the disclosures  
15   to make sure that the disclosures adequately convey the  
16   measurement uncertainty.

17          But I think that that's a good question for the  
18   staff to continue to pursue, but interested in if anyone  
19   has any comments.

20          MR. BAUMANN: I'll just add onto that, again, many  
21   of the commenters did say that they -- first of all, we

1       don't -- we agree with you, auditors can't audit away  
2       measurement uncertainty. It is what it is.

3               So, but the question is what should auditors do  
4       about it? In the -- and we asked that question in the  
5       consultation paper.

6               Many commenters said this was not a problem that  
7       PCAOB could solve by itself, that this was a problem of the  
8       financial reporting system and that the PCAOB and SEC and  
9       FASB should work together, and maybe is there more  
10      reporting that can be done on behalf of management, with  
11      respect to estimation uncertainty, than exists today?

12              And so that came up a lot in comment letters.

13              But I think what we're trying to do at a minimum on  
14      our end is say -- and I think it goes back into tying into  
15      the point of Barbara's about changing language from  
16      "corroborate" to "critically evaluate," or whatever the  
17      terms might be.

18              If auditors today are corroborating an estimate,  
19      while there is a wide range of measurement uncertainty,  
20      then I don't think we're achieving the objectives of what  
21      we want the auditor to do. We want the auditor to  
22      understand whether or not there is a wide range of

1 measurement uncertainty, and then, with respect to that  
2 risk of material misstatement because of that wide range,  
3 address their auditing procedures around that considering  
4 how management addressed that wide range of measurement  
5 uncertainty and how it considered various alternatives and  
6 why they picked the assumptions they did pick as opposed --  
7 and reject other assumptions and come up with the answer  
8 they did.

9 So I think -- I think we're on the same page here,  
10 not auditing it away, but what are the right procedures to  
11 make sure the auditor considers all of the options around  
12 that measurement uncertainty.

13 MS. VANICH: Brian?

14 MR. CROTEAU: Actually, a lot of what I was going to  
15 say I think Marty has just said, and Bill as well, frankly,  
16 and I think it's very helpful.

17 Again, my own views here on this, but as you hear  
18 and think about -- well, first of all, maybe thinking about  
19 the fair value project when you think about specialists,  
20 when you think about the reporting model and CAMs, I think  
21 all of these things can have some interrelationship, but  
22 you know, as you think about reasonable assurance and you

1 think about uncertainty, levels of precision, these  
2 concepts I think are -- you need to think about them all  
3 carefully and in their compartments, and then how they  
4 interrelate.

5 And from at least my perspective, I think this is a  
6 good dialogue to be having as you're working on all of  
7 these projects, and I guess I would just encourage, as  
8 people are thinking about providing feedback, to step back  
9 and think about them and to give some consideration to  
10 making sure that we're not doing something that we're  
11 trying to solve, to Marty's point, something that could be  
12 a management disclosure issue through the auditing  
13 standards, and if we're thinking about something that  
14 belongs in the auditing standards, perhaps in the auditor's  
15 reporting model, what is that and why, and how does that  
16 relate to something that management may already have  
17 obligations for or not?

18 So I think these are very important concepts, and I  
19 wouldn't want to put Jim on the spot, but you know, I don't  
20 think from a IAASB perspective you know, the idea was  
21 certainly to have different levels of assurance or change  
22 the reasonable assurance models with KAMs as opposed to



1 CAMs, and I think that's critical to think about as you're  
2 -- as you're providing feedback on these projects.

3 MR. BAUMANN: Thanks, Brian.

4 Bob Dacey?

5 MR. DACEY: Thank you, and these are my personal  
6 views as well and not necessarily those of GAO.

7 But just observations. I guess I would have some  
8 concerns, as was mentioned before, about adding specific  
9 requirements when you have significant measurement  
10 uncertainty, but at the same time, I guess some of our work  
11 kind of crosses over with sensitivity analysis and trying  
12 to identify those assumptions or drivers of that range of  
13 uncertainty to help understand and focus attention on those  
14 areas to see if we have sufficient evidence to support that  
15 those are, you know, reasonably supported by sufficient  
16 appropriate evidence to really hone in on those key  
17 drivers.

18 Thanks.

19 MR. BAUMANN: Thanks, Bob.

20 Bob Herz?

21 MR. HERZ: Yeah. I guess it was this morning that  
22 Liz Murrall mentioned that in the U.K. auditor reporting,

1       they actually explicitly talk about the materiality level  
2       that they set, and I don't know whether you're thinking  
3       about that in our auditor reporting here in the U.S., but  
4       if you are, and I am starting to think about how all this  
5       would relate to that, and expectation gaps, and how that  
6       can be communicated appropriately, because, you know, we  
7       said here, you know, let's say for a particular audit they  
8       said it's five million dollars and there's particular  
9       estimates that individually are -- some individually, and  
10      certainly in the aggregate, are much more than, you know,  
11      an uncertainty range of five million dollars, and, you  
12      know, how that all gets related to that disclosure of the  
13      materiality.

14             It has got to be explained. Otherwise, I think it  
15      increases the -- it could increase the expectation gap.

16             MS. VANICH: Yeah, I think that some commenters did  
17      kind of specifically point out that some people dealt with  
18      this as when measurement uncertainty exceeded materiality,  
19      I think from the staff perspective we definitely thought  
20      that that would be incredibly challenging because unless  
21      you disclose materiality and just say it was larger than  
22      materiality, I would assume that as an investor I would

1 want to know whether it's a dollar more or a billion  
2 dollars more.

3 And then if people would be interested, maybe more  
4 in aggregate for the balance sheet, has measurement  
5 uncertainty exceeded materiality?

6 So those areas are certainly not without challenge.

7 I think Sri?

8 MR. RAMAMOORTI: Bob, thanks for so eloquently  
9 trying to, you know, communicate what I am going to try and  
10 say too.

11 I have very strong opinions on this one. I agree  
12 completely with Tom that we don't want to be in a position  
13 where the measurement uncertainty significantly exceeds the  
14 threshold in that it could even be a multiple of the  
15 materiality threshold because if that were true, the  
16 standard audit report language that the financial  
17 statements present fairly in all material respects, that is  
18 actually meaningless.

19 How could you even make that statement? Because  
20 these things are totally, you know, out of the, like,  
21 reservation, I guess. I mean, they are like so far out,  
22 you have no idea.

1           So I don't think you certainly cannot audit them  
2 away, we talked about that, but I think we can't even opine  
3 on these numbers, and if we do opine, the danger we put  
4 ourselves in is that we are now dignifying numbers about  
5 which we have no clue. We have no clue. We don't know  
6 where they've gone, but we're happy to I guess have our  
7 name associated with them. Why would we do that? That's  
8 not a very smart thing.

9           So my preference would be if there is some way to  
10 dissociate from this area by basically saying we are happy  
11 to look at management's process, and what kind of integrity  
12 did they show, what kind of diligence did they show in  
13 terms of coming up with what is admittedly a very  
14 challenging issue?

15           We sympathize, and we understand, so that would be  
16 my first preference, if you can do it.

17           However, I also understand how hard you folks have  
18 worked because I am totally impressed with all these  
19 alternatives that you have come up with, and to me, the  
20 last one, which is maybe lumping these as part of the  
21 critical audit matters, maybe roping in the audit committee  
22 in terms of formal communication, and most interestingly,

1 if you could disclose in the auditor's report that folks,  
2 this is way beyond, you know, our ability to meaningfully  
3 opine on, and it's basically putting the public on notice  
4 that we really shouldn't be relied upon to be opining very  
5 meaningfully, I think then we are protecting ourselves.

6 MR. BAUMANN: Well, I don't think we've teed up the  
7 latter one in this discussion, that the auditor would say  
8 that we can't opine on this because the measurement  
9 uncertainty is too wide.

10 But I -- as commented earlier, there certainly was  
11 various different groups in the past, as I mentioned The  
12 American Assembly, that talked about varying levels of  
13 assurance, that certain numbers are more capable of  
14 assurance than others.

15 So if auditors believe that these numbers were not  
16 auditable, or we believe that, I think we have to address  
17 that issue. I don't think we're at that state, but  
18 certainly that would be an important matter to take up.

19 I do think as long as they are auditable, the  
20 importance of this expanded audit report in critical audit  
21 matters helps tell investors the story that there are  
22 different sets of numbers here in the financial statements

1 and some have far greater risk of material misstatement and  
2 some have far greater measurement uncertainty, and that's  
3 important I think for investors to understand.

4 MS. VANICH: Okay, you know, I'm keenly aware that  
5 we're starting to lose people as they have to leave to  
6 catch their transportation.

7 Again, we've probably saved -- I don't know if this  
8 is a tougher issue than measurement uncertainty, certainly  
9 sometimes it feels like it is, but the last -- the last  
10 topic of the day is use of third parties, and there is a  
11 lot of overlap with what we talked about this morning, the  
12 content of the staff consultation paper on auditor  
13 specialists, and the area of auditing fair value  
14 measurements and estimates.

15 The first panel this morning, and not to slight the  
16 second panel, but the first panel, what you heard I think  
17 was really more closely related to something we were going  
18 to talk about today, which was management's use of the  
19 specialist.

20 But in the interest of time and because I would like  
21 to talk about the auditor's use of pricing services, if  
22 it's okay with everyone, I'd like to walk through what I

1 heard and kind of where I think -- how it affects this  
2 project, and certainly we would obviously wait for the  
3 comment period to close to make any kind of conclusion.

4 But I think one of the things we heard and heard  
5 relatively strongly was to consider retaining AU Section  
6 336, or have some other type of standard relating to the  
7 auditor using the work of management specialists.

8 The staff consultation paper had started to go down  
9 a path of having the auditor treat information from  
10 management specialists as if it were developed by  
11 management. I think that the specialist team benefitted  
12 from the comment that we've received that that might not be  
13 the best way to go about standard setting.

14 So with respect to management's use of a specialist,  
15 I think that we probably have some homework to do. I don't  
16 know if anyone disagrees with that view, you're welcome to  
17 get to -- to let us know.

18 But I don't want to close out the day, and so I  
19 assume this will be kind of our last discussion of the day  
20 that I want to get to is the auditor's use of a third  
21 party, and in particular, the approach that the staff had  
22 put forth when using a pricing service.

1           So the staff included in the staff consultation  
2     paper some example requirements that could apply when an  
3     auditor uses a pricing service, which in the staff's view  
4     is different than a traditional specialist. I think we  
5     heard part of that today, that pricing services provide a  
6     uniform product to subscribers for a fee. We heard from  
7     commenters that there is certainly less opportunity for  
8     management to bias that number, if any opportunity at all,  
9     maybe depending on the exact process.

10           Commenters generally agreed that the pricing  
11     services are different than specialists. Some suggested  
12     additional procedures or other procedures. Some commenters  
13     were unsure based on the consultation paper whether the  
14     staff was suggesting there would be procedures for each and  
15     every individual security in a portfolio, and some also  
16     suggested that for many easy-to-value securities, their  
17     first procedure is to look at exchanges or information  
18     that's in the public domain rather than to go to a pricing  
19     service.

20           So the first alternative that we wanted to talk  
21     about was whether it would be maybe more beneficial, and  
22     this is an either/or alternative, I should mention that, to



1 retain the approach discussed in the staff consultation  
2 paper largely as described, however to clarify the  
3 auditor's ability to group securities with similar  
4 characteristics and risk, and to also acknowledge, and I  
5 would say acknowledge because this was not inconsistent  
6 with the staff's view when we developed the paper, that for  
7 exchange-traded securities, acknowledging that evidence  
8 provided through quoted market prices that are readily  
9 available to the public through national exchanges would  
10 serve as audit evidence.

11 The other alternative, and this is really kind of a  
12 much broader alternative to what was discussed in the staff  
13 consultation paper, is to take a different approach and to  
14 address not only the pricing service used by the auditor,  
15 but to consider what -- whether the auditor could in some  
16 way use the work of management's pricing service. I think  
17 we certainly heard support today for retaining the  
18 auditor's ability to use management's specialists, so I  
19 think it would be reasonable for us to look into whether  
20 the auditor could use the work of management's pricing  
21 service, given we've heard that there is less chance of  
22 bias.

1 Under that approach, we also thought it would be  
2 beneficial to consider what other types of auditing  
3 requirements and guidance would be useful for financial  
4 instruments on a broader basis, and that could include  
5 considerations relevant for assessing risk with -- related  
6 to financial instruments, responding to risk, and  
7 addressing perhaps specific topics like impairment of  
8 financial instruments.

9 I know that is a lot to get through in a few  
10 minutes, but I really wanted to get your reaction to this  
11 alternative and discussion.

12 Larry?

13 MR. SMITH: So in reading the paper, I was a little  
14 disappointed that there was not something else on there  
15 that you were considering which has been mentioned  
16 previously today, so I am going to strongly encourage the  
17 PCAOB to listen to the sage advice provided by my former  
18 boss in terms of developing -- particularly for Level 2  
19 measurements, developing a SAS-70-type report in which an  
20 auditor of the pricing service provides a report on the  
21 internal control system and also provides a report  
22 summarizing the results of substantive tests in which, and

1       you pick it, the confidence level is x, that the error rate  
2       doesn't exceed y, and then allow other auditors of  
3       companies that are using that pricing service to rely on  
4       the results of that single audit and not do any other work  
5       on it.

6               I think that would take tremendous costs out of the  
7       system.

8               MS. VANICH:   Jay?

9               MR. HANSON:   I just wanted to express my support for  
10       Larry's comments and Bob's earlier comments that as I kind  
11       of pragmatically step back and think about it, and I am  
12       going to look at Jouky for a minute and say gee, there is  
13       probably nobody in this room who knows more about -- well,  
14       Jouky and Susie -- pricing financial instruments than the  
15       two people there, so either we could have everybody in the  
16       room without the skills to do it try to audit it, or have  
17       those two tell us the prices, and we test what they -- they  
18       told us, and all of us rely on it.   I would vote for two  
19       experts determining the price, and the rest of us relying  
20       on it.

21               MR. BAUMANN:   Larry's got your statement in, and  
22       you're walking out before I can get my response back there?

1 (Laughter.)

2 MR. BAUMANN: Make the comment and run.

3 Certainly I think that's a good comment. If there  
4 could be an audit of pricing services and a report on the  
5 pricing service that auditors could rely on where the test  
6 of the process and controls and test of the substantive  
7 tests of actual valuations of different types of categories  
8 and that type of report could be developed, I think that it  
9 would certainly help take costs out of the system and  
10 enable auditors to use pricing services more freely without  
11 performing maybe additional tests there in each case.

12 I think there's an authority question there in terms  
13 of the Board in terms of could we mandate that pricing  
14 services have to have these types of studies done? So, I  
15 mean, if they're done and pricing services engage somebody  
16 to do all these services, the question is we don't have  
17 authority over pricing services, we have authority over the  
18 audit of the issuer, so I think there's at least a question  
19 there as to what's the mechanism for that to take place.

20 I am happy to explore that, whatever that mechanism  
21 is, happy to hear more about it, but certainly, to the

1 extent that we're there, that's a dialogue we'd love to  
2 have further.

3 I think that without that mechanism, I think what  
4 we're looking at is, yeah, use the third-party pricing  
5 service and assess the extent to which they are  
6 independent, that their prices are widely used, that they  
7 have some processes and controls. I know the larger firms  
8 today are doing a lot of what was just said. Some of the  
9 larger firms are going into that pricing service one time,  
10 evaluating the controls around that, processes, their  
11 prices, doing substantive tests of different categories,  
12 and creating the ability to therefore -- so that all their  
13 engagement teams don't have to go in, they have gone in and  
14 made that valuation, and then the firm, I think the teams  
15 test selected prices along the way.

16 So I think that that is happening today to benefit  
17 the large firms. The smaller firms that can't do that  
18 don't have the same benefit, so I think this is an area  
19 that's continuing to evolve, and we're looking for ways to  
20 do what Larry said, to get costs out of the system and to  
21 get a benefit of an overall study of these pricing  
22 services.

1           So ideas in this area are certainly -- are valued,  
2           and I will look forward to more.

3           Brian Croteau, you have your card up.

4           MR. CROTEAU: Thanks Marty.

5           I was just going to add, that's what you'd say  
6           certainly from an authority perspective, some have asked me  
7           as well from time to time about the SEC, and without  
8           getting into that, I think a first question that some  
9           pricing services may have registration requirements with  
10          the SEC depending on the nature of the services they're  
11          offering, but that doesn't necessarily follow relative to  
12          authority to just mandate some type of audit.

13          But then you get into the question of the standards  
14          against which the audit would be performed, and the  
15          questions that in fact I think Larry is raising about  
16          precision, essentially, and level of confidence that one  
17          would need to think about relative to the potential than an  
18          individual company has one individual security that could  
19          be hugely material that may, you know -- that needs to be  
20          thought about in the context of the overall audit of a  
21          pricing service if that kind of an approach were even  
22          market-driven.

1           So I think to Marty's points, it's an interesting  
2   area to really give a lot of thought to, but I think, you  
3   know, there's a lot of issues to think about when doing  
4   that, and not just authority questions: what the auditing  
5   standards would be around it, would it be market driven,  
6   would the precision levels stand the test of thinking about  
7   the example I gave of one security being hugely material?

8           I am not raising these issues to say we shouldn't  
9   think about it, I am raising them to add to what Marty has  
10  described. I think it's worthy of thinking about, but, you  
11  know, thinking about all these issues as we do so.

12           MS. VANICH: If I could add onto -- if I --

13           MR. HERZ: I was thinking much more of a market-  
14  driven thing, not that you -- I don't think you have that  
15  authority, but something that if, you know, they got, you  
16  know, a service bureau's SOC 1 Report, and kind of an  
17  equivalent in this area to maybe what Larry said, but if  
18  that occurs and it's -- it meets those standards, then, you  
19  know, for those pricing services, that, you know, that  
20  would be another way to go.

1 MS. VANICH: If I could -- if I could add to that,  
2 though, there is one point that I think that's particularly  
3 relevant.

4 Based on the staff's outreach, it would be  
5 interesting if anyone has any views or data on how this  
6 would take costs out of the system.

7 As Marty mentioned, the large firms have in-house  
8 expertise that does a lot of work with pricing services.  
9 We don't hear from enough small firms, but from some of the  
10 smaller firms we heard from, they don't extensively use  
11 pricing services. It's just not part of their business  
12 model to pay for an ongoing subscription or to have a  
13 relationship. Because their issuers may or may not have  
14 very many securities, they may be more likely to test  
15 management's process or to go to a specialist, so I think  
16 that we would have a lot of questions to ask around whether  
17 it really would, on the audit side of the house, take costs  
18 out of the system.

19 MR. BAUMANN: Bruce Webb.

20 MR. WEBB: Thank you, Marty and Barbara.

21 I just, you know, I think Larry's idea is an  
22 intriguing one. Just a couple of points.



1           I mean, first of all, pricing services I believe in  
2       some cases are a service organization, in other cases maybe  
3       a specialist. It depends on -- on how they determine the  
4       value of a security.

5           So, you know, today, we do have -- we do have the  
6       SOC 1 approach for internal controls that they're  
7       considered to be a service organization, they could elect  
8       to issue a service organization report and have a service  
9       auditor report on their internal controls.

10          That gets you partway there, but, you know, you  
11       can't rely solely on tests of controls, so some substantive  
12       procedures still need to be performed, and I think what  
13       Larry was proposing is some sort of a combined  
14       controls/substantive audit of a service organization that  
15       would, I think, require some sort of new standards setting  
16       because there's not a standard today that would enable that  
17       sort of approach to allow an auditor to rely on that as  
18       audit evidence without doing their own work.

19          MR. BAUMANN: I think to maybe Bob's point, if there  
20       is a lot of cost in the system, you'd think it would be a  
21       market-driven event to say -- for this report and this  
22       study to happen, because the market would say that would be

1 an efficient use of pricing services, and would standards  
2 setters, you know, permit auditors to reduce the scope of  
3 their work if this type of report, this type of both  
4 internal control and substantive testing of prices in  
5 different categories, took place, much as what I think the  
6 large firms are actually doing for their own teams?

7 And I don't know if any of the large firms want to  
8 comment on that or it's proprietary, but so speaking  
9 generically then of large firms.

10 Well, good. So I think -- Jean Joy, and I also  
11 would be interested, James, if you think this is something  
12 that is being discussed at the -- at the IAASB, but let me  
13 -- I don't want to put you on the spot in that regard, but  
14 in the meantime, Jean.

15 MR. GUNN: No, thank you very much, I had -- I just  
16 -- general comments from today's discussion, and first of  
17 all, I'd like to state the obvious: I think the PCAOB and  
18 staff's efforts of looking at these performance standards  
19 both on specialists and fair values is the right place to  
20 be, so much support from the Board and the IAASB staff for  
21 your continued efforts on the two topics that you've raised  
22 today.

1           We are -- we do not have a particular project on  
2           third-party pricing sources, and we're not in the state of  
3           reviewing ISA 620 at the moment.

4           However, we've -- we've undertaken an exercise, and  
5           I think we started off on the premise of financial  
6           institutions because that area has many issues in terms of  
7           fair value estimations, modeling, use of experts internally  
8           and externally, and so forth.

9           And so we've taken away the industry factor, and I  
10          think we are going to be focusing more around the IFRS 9  
11          issues, loan loss provisions and the implications of that  
12          relative to the auditor's work in modeling, testing, and so  
13          forth.

14          We do know that this is an area, third-party pricing  
15          sources, where there could be further enhancements within  
16          the standards, so we -- we look to monitoring your  
17          activities and considerations quite closely to inform our  
18          future activities.

19          MR. BAUMANN: Thanks, James.

20          Now Jean? And Jean, it looks like, unless anybody  
21          else wants to put a card up on this subject, you get the  
22          last word, but I'll monitor the table on this.

1 MS. JOY: It's never a good position to be in.

2 I'll make this very brief since you asked about the  
3 small-firm perspectives and cost in the system.

4 And I would just continue to suggest that there --  
5 there be more attention paid to the risk assessment and the  
6 -- the banning, if you will, of testing back to a client's  
7 pricing service, to me, is still sometimes ineffective or  
8 just not warranted, meaning if you have really assessed the  
9 risk of a portfolio and you're talking about, you know,  
10 Level 2 securities for the most part, at least  
11 understanding the nature of those securities, and are you  
12 really gaining further audit evidence that would have any  
13 material impact on the financial statements by -- by having  
14 to test to a second source?

15 So I'm always troubled by -- that is adding cost to  
16 the system because we don't have pricing specialists, and  
17 we are paying an additional service to test back to pricing  
18 sources that are deemed to be very reputable, so to see a  
19 ban on that without an appropriate risk assessment, I think  
20 I'm troubled by the fact that we keep getting away from  
21 that, but I'd still like to see some focus on when the risk

1        assessment is appropriate, that you don't have to go to a  
2        second source.

And I think anything we can do to get the credentials, if you will, of the service provider more transparent so that they can be relied upon by many firms, I think that that would be a tremendous step forward.

MS. VANICH: Well, I think that everyone has done a great job, and I appreciate all the effort you put into preparing for today, and so to -- we're going to end on time, but again, I want to thank you for -- for your time and helpful comments.

MR. BAUMANN: Thanks, thanks Barbara.

**NOTICE:** This is an unofficial transcript of the portion of the Public Company Accounting Oversight Board's Standing Advisory Group meeting on November 30, 2017, that relates to *Proposed Auditing Standard for Auditing Accounting Estimates, Including Fair Value Measurements* and *Proposed Amendments to Auditing Standards for Auditor's Use of the Work of Specialists*. The other topics discussed during the November 29-30 2017 meeting are not included in this transcript excerpt. The Public Company Accounting Oversight Board does not certify the accuracy of this unofficial transcript, which may contain typographical or other errors or omissions. An archive of the webcast of the entire meeting can be found on the Public Company Accounting Oversight Board's website at: <https://pcaobus.org/News/Events/Pages/SAG-meeting-Nov-2017.aspx>

PUBLIC COMPANY ACCOUNTING OVERSIGHT BOARD

+ + + + +

STANDING ADVISORY GROUP

+ + + + +

MEETING

+ + + + +

THURSDAY  
NOVEMBER 30, 2017

+ + + + +

The Advisory Group met in the Academy Hall, FHI 360, located at 1825 Connecticut Avenue, Northwest, Washington, D.C., at 8:30 a.m., James R. Doty, Chairman, presiding.

PCAOB BOARD OF DIRECTORS

JAMES R. DOTY, Chairman  
LEWIS H. FERGUSON, Board Member  
JEANETTE M. FRANZEL, Board Member  
STEVEN B. HARRIS, Board Member

STANDING ADVISORY GROUP

MARTIN F. BAUMANN, PCAOB, Chief Auditor and  
Director of Professional Standards  
JOAN C. AMBLE, President, JCA Consulting, LLC  
PRAT BHATT, Senior Vice President, Corporate  
Controller, and Chief Accounting Officer,  
Cisco Systems, Inc.  
HON. RICHARD C. BREEDEN, Chairman and CEO,  
Breedon Capital Management, LLC  
J. ROBERT BROWN, JR., Lawrence W. Treece  
Professor of Corporate and Director,  
Corporate and Commercial Law Program,  
University of Denver Sturm College of Law  
PETER C. CLAPMAN, Senior Advisor, CamberView  
Partners, LLC  
LEONARD L. COMBS, U.S. Chief Auditor,  
PricewaterhouseCoopers LLP  
CHARLES M. ELSON, Edgar S. Woolard, Jr., Chair of  
Corporate Governance, and Director, John  
L. Weinberg Center for Corporate



Governance, University of Delaware  
 SYDNEY K. GARMONG, Partner in Charge, Regulatory  
 Competency Center, Crowe Horwath LLP  
 KENNETH A. GOLDMAN, Public company board member  
 L. JANE HAMBLIN, Former Chief Legal Counsel,  
 State of Wisconsin Investment Board  
 ROBERT H. HERZ, Chief Executive Officer, Robert  
 H. Herz LLC and Executive-in-Residence,  
 Columbia Business School, Columbia  
 University  
 PHILIP R. JOHNSON, Former Nonexecutive Director,  
 Yorkshire Building Society  
 JEAN M. JOY, Director of Professional Practice  
 and Director of Financial Institutions  
 Practice, Wolf & Company, P.C.  
 DAVID A. KANE, Americas Vice Chair, Assurance  
 Professional Practice, Ernst & Young LLP  
 W. ROBERT KNECHEL, Frederick E. Fisher Eminent  
 Scholar in Accounting and Director, Center  
 for International Research in Accounting and  
 Auditing, University of Florida  
 JON LUKOMNIK, Executive Director, Investor  
 Responsibility Research Center Institute,  
 and Managing Partner, Sinclair Capital,  
 LLC  
 DOUGLAS L. MAINE, Limited Partner and Senior  
 Advisor, Brown Brothers Harriman & Co.  
 MAUREEN F. McNICHOLS, Marriner S. Eccles  
 Professor of Public and Private Management  
 and Professor of Accounting, Stanford  
 University  
 LIZ D. MURRALL, Director, Stewardship and  
 Reporting, The Investment Association  
 KAREN K. NELSON, M.J. Neeley Professor of  
 Accounting, Texas Christian University  
 JEFFREY D. NUECHTERLEIN, Managing Partner, Nue  
 Capital LLC  
 JEREMY E. PERLER, Partner and Director of  
 Research, Schilit Forensics  
 SANDRA J. PETERS, Head of Financial Reporting  
 Policy, CFA Institute  
 BRANDON J. REES, Deputy Director, Office of  
 Investment, AFL-CIO  
 CHARLES V. SENATORE, Executive Vice President,  
 Head of Regulatory Coordination and  
 Strategy, Fidelity Investments  
 DAVID SHAMMAI, Senior Governance Specialist, APG  
 Assent Management  
 DEBRA SMITH, Chief Operating Investment Officer,  
 CalSTRS  
 WENDY B. STEVENS, Partner, WeiserMazars LLP

DAVID M. SULLIVAN, National Managing Partner -  
Quality & Professional Practice, Deloitte &  
Touche LLP

SIR DAVID P. TWEEDIE, Chairman, International  
Valuation Standards Council

JOHN W. WHITE, Partner, Corporate Department,  
Cravath, Swaine & Moore LLP

#### OBSERVERS

SUSAN COSPER, Financial Accounting Standards  
Board

BOB DACEY, Government Accountability Office

ANN DUGUID, Financial Industry Regulatory  
Authority

HARRISON GREENE, Federal Deposit Insurance  
Corporation

MARC PANUCCI, Securities and Exchange  
Commission

MIKE SANTAY, Grant Thornton

ARNOLD SCHILDER, International Accounting and  
Assurance Standards Board

#### PCAOB STAFF

DIMA ANDRIYENKO, Associate Chief Auditor

LISA CALANDRIELLO, Assistant Chief Auditor

BRIAN DEGANO, Associate Chief Auditor

JOHN FIEBIG, Senior Deputy Director, Division of  
Registration and Inspections

MARION KOENIGS, Deputy Director, Accountant,  
Division of Enforcement and Investigations

PAT McNAMEE, Deputy Chief Auditor

JENNIFER RAND, Deputy Division Director and  
Deputy Chief Auditor

BARBARA VANICH, Associate Chief Auditor

JESSICA WATTS, Associate Chief Auditor

KEITH WILSON, Deputy Chief Auditor

1 MR. BAUMANN: Good. Thanks, Jennifer. We're now going to talk  
2 about a couple of the recently proposed auditing standards that have gone  
3 through actually a number of proposals, accounting estimates and fair-value  
4 measures, and the work with specialists, the first two subject of staff-consultation  
5 papers, significant discussions over time at -- with the SAG here, about those  
6 consultation papers. A lot of comment letters. Then we've issued proposals,  
7 and we've gotten responses to those proposals as well.

8 So, right now, Keith Wilson and Barbara Vanich and Lisa Calandriello  
9 will talk about counting estimates and fair-value measures, and then the work of  
10 specialists.

11 MS. VANICH: Okay. Thank you, Marty. I will get started as we get  
12 to the slides here. Okay. As you heard Marty and Jim say yesterday, on June  
13 1st, the board issued two proposals for auditor performance standards in areas  
14 we view that are just vital to audit quality. First, auditing accounting estimates  
15 and fair-value measurements. And second, the auditor's use of the work of  
16 specialists.

17 The two proposals were developed in tandem, so that the proposed  
18 rules can work together. For example, when using a specialist in auditing an  
19 accounting estimate. The first proposal I'm going to spend a few minutes  
20 updating you on would update and strengthen the standards for auditing  
21 accounting estimates and fair-value measurements.

22 As Marty mentioned, both of the proposals were subject to extensive  
23 outreach, and several commenters noted that they were very appreciative of the  
24 process followed by the staff in developing those. So, the comment periods

1 ended back in -- on August 30th.

2 So, by way of review at a high level, the proposed standard on  
3 estimates would enhance and strengthen the requirements for auditing  
4 accounting estimates and fair-value measurements in the following ways. First,  
5 the proposal would replace three existing overlapping standards developed over  
6 the years with a single standard that streamlines and strengthens the direction to  
7 auditors in this important area.

8 Specifically, the proposed standard would replace AS 2501 on auditing  
9 accounting estimates and supersede AS 2502 on fair-value measurements and  
10 AS 2503 on auditing derivatives, hedges, and investments in securities. So, I'll  
11 just refer to those collectively as the existing estimate standards.

12 The proposal also includes an emphasis on applying professional  
13 skepticism. For example, the proposal would require the auditor to address in  
14 the brainstorming session how the financial statements could be manipulated  
15 through management bias, to consider in identifying the assumptions for testing  
16 the assumptions that may be more susceptible to management bias, to consider  
17 in evaluating the company's process for developing an estimate, whether the  
18 company had a reasonable basis for its significant assumptions, and in  
19 developing an independent expectation of accounting estimate, for the auditor to  
20 have a reasonable basis for the assumptions that the auditor uses.

21 Second, this proposal builds on three existing approaches to auditing  
22 accounting estimates that auditors are familiar with. Testing the company's  
23 process, developing an independent expectation, and evaluating evidence from  
24 subsequent transactions and events. The proposal enhances the requirements

1 for those approaches by, for example, providing additional direction on developing  
2 an independent expectation, depending on the source of the information used by  
3 the auditor to develop that expectation.

4 Third, the proposal would require a robust risk assessment of a  
5 company's accounting estimates and response tailored to the assessed risks,  
6 whether they relate to subjectivity, complex processes, or the risk of management  
7 bias.

8 And fourth, the proposal updates PCAOB standards in light of  
9 developments on auditing practices for fair values of financial instruments. For  
10 example, auditors' evaluation of pricing services information has grown more  
11 important over the years, yet the subject is lightly covered in the current  
12 standards. This proposal contains an appendix on auditing fair-value  
13 measurements that addresses, among other things, the auditors' use of pricing  
14 service information to promote a proper evaluation of that information that builds  
15 on existing requirements for evaluating the relevance and reliability of audit  
16 evidence under PCAOB standards.

17 So, we received 37 comment letters on the proposal. As you can see,  
18 it's from a various group of constituents. Commenters across many affiliations,  
19 with the exception of trade groups, in general supported the board's efforts to  
20 strengthen auditing practices and update its standards. Investor groups  
21 supported the proposal, noting that the proposal would strengthen auditors'  
22 responsibilities, improve audit quality, and further investor protection. There was  
23 also strong support for retaining the three existing approaches for auditing

1 estimates, and for more specifically addressing financial instruments, including  
2 the use of pricing services.

3 The comments received on the proposal primarily suggested  
4 clarifications and refinements to specific requirements, which I'll now touch on  
5 briefly.

6 So, the objective of the proposed standard emphasizes the  
7 fundamental aspects of auditing accounting estimates under the existing estimate  
8 standards, specifically, testing and evaluating whether accounting estimates are  
9 reasonable in the circumstances, have been accounted for and disclosed in  
10 conformity with the applicable financial reporting framework, and are free from  
11 bias that results in material misstatement. Some commenters expressed  
12 concern about referencing freedom from management bias as a distinct element  
13 of the audit objective, because it could, for example, suggest a broader obligation  
14 than in their view is required under the existing standards.

15 Another area of the proposal receiving specific comments and  
16 suggestions related to testing a company's process for developing accounting  
17 estimates. The proposal would retain the requirements from AS 2502 for testing  
18 a company's process, which includes evaluating the method, evaluating  
19 significant assumptions for reasonableness, and testing data used.

20 The principal comments on these aspects of the proposal related to the  
21 requirements for evaluating the methods used to develop the accounting  
22 estimates and for identifying and evaluating significant assumptions. The  
23 proposed standard would require the auditor to evaluate whether the company's

1 methods are in conformity with the requirements of the applicable financial  
2 reporting framework and appropriate for the nature of the related account or  
3 disclosure and business, industry, and environment in which the company  
4 operates.

5 Some commenters expressed concerns about evaluating whether the  
6 company's methods are appropriate for the business, industry, and environment  
7 in which the company operates, because, for example, the requirement could be  
8 read to presume that all companies within a particular industry use or should use  
9 the same method.

10 The proposal sets forth factors relevant to identifying significant  
11 assumptions used by the company. The requirement also provided that if the  
12 company has identified significant assumptions, the auditor's identification of  
13 significant assumptions should include those identified by the company as  
14 significant.

15 Some commenters indicated that one of the factors relevant to  
16 identifying significant assumptions, whether the assumptions otherwise are  
17 related to and identified in assessed risk of material misstatement of the estimate,  
18 is too broad and could result in all assumptions being identified as significant.

19 Some commenters also expressed concerns that the requirement for  
20 the auditor to include all assumptions identified by the company as significant may  
21 not be practical. For example, because management is not subject to any  
22 specific requirements for identifying significant assumptions.

23 The proposed standard also set forth requirements for evaluating the

1       reasonableness of significant assumptions, including evaluating whether the  
2       company has a reasonable basis for the significant assumptions used. In  
3       addition, for critical accounting estimates, the proposed standard would require  
4       the auditor to obtain an understand of how management analyzed the sensitivity  
5       of its significant assumptions to change based on other reasonably likely  
6       outcomes that would have a material effect. The auditor would take that  
7       understanding into account when evaluating the reasonableness of significant  
8       assumptions and potential management bias.

9               With respect to critical accounting estimates, a few commenters  
10       suggested that the requirement to obtain an understanding of how management  
11       analyzed the sensitivity of significant assumptions should be recast as a risk  
12       assessment procedure, rather than as a substantive procedure.

13              Developing an independent expectation of the estimate. The majority  
14       of comments received on that area related to developing that expectation as a  
15       range. So, under the proposed standard, the auditor's responsibilities, with  
16       respect to developing an independent expectation of the estimate, depends on  
17       the sources of the method, data, and assumptions used by the auditor.

18              When the auditor's independent expectation consists of a range rather  
19       than a point estimate, the proposed standard would require the auditor to  
20       determine if the range is appropriate for identifying a misstatement of the  
21       accounting estimate and supported by sufficient appropriate audit evidence.

22              Some commenters asked for clarification or guidance on determining  
23       that a range is appropriate for determining a misstatement, especially when there



1 is a large degree of measurement uncertainty. And several commenters  
2 expressed concern that the proposed requirement might imply a level of precision  
3 within a range that might not be feasible.

4 As I mentioned, Appendix A of the proposed standard primarily sets  
5 forth requirements for evaluating the relevance and reliability of audit evidence  
6 when using pricing information from a pricing service, multiple pricing services  
7 and broker-dealers.

8 A large portion of the comments on Appendix A related to requests for  
9 clarification about the unit of testing, with commenters expressing concern that, as  
10 drafted, the requirements in the Appendix suggested that procedures could be  
11 read to say that they must be applied to each individual financial instrument.

12 Some commenters requested clarification or guidance on the  
13 additional procedures to be performed when evaluating the process used by a  
14 pricing service, while others called for clarification regarding how the  
15 requirements apply when a centralized pricing desk is used.

16 Others asked for clarification on certain factors used to assess the  
17 reliability of pricing information from pricing services along the proposed  
18 requirements for using information from multiple pricing services.

19 And, lastly, a few commenters suggested retaining portions of AS 2503  
20 that in their view provided helpful guidance on auditing derivatives and other  
21 financial instruments.

22 With respect to the proposed amendments that accompanied the  
23 standard, proposed Appendix A to AS 1105 would retain and update certain

1 requirements from AS 2503 to better align the required procedures to evaluate  
2 evidence obtained regarding the valuation of investments based on the investee's  
3 financial condition or operating results within the risk-assessment standards.

4 The primary comments received on the proposed appendix were  
5 questions on the intent of the requirement to obtain an understanding of whether  
6 the report of the investee's auditor indicates that the audit was performed under  
7 PCAOB standards. Concerns that there's certain procedures that involve  
8 interaction with investee management or the investee auditor might not be  
9 practicable, because the investment company's auditor might not have access to  
10 those parties. And suggestions for alternative procedures relating to testing, the  
11 investor management's process.

12 With respect to the proposed amendment on AS 2401 on retrospective  
13 review, extant AS 2401 requires the auditor to perform a retrospective review for  
14 significant accounting estimates reflected in the prior year financial statements.  
15 Proposed amendment to AS 2401 would clarify that requirement by removing  
16 extraneous language that distracts from the actual requirement and aligning the  
17 language of the requirement more closely with the proposed standard.

18 Several commenters expressed concern that the proposed  
19 amendments would expand the population of accounting estimates subject to the  
20 retrospective review, resulting in excessive work.

21 Other areas of comments related primarily to requests for additional  
22 guidance, for example, on how to apply the requirements to certain accounting  
23 estimates. Others, as noted earlier, asked for certain guidance in AS 2503 to be

1 retained.

2 Commenters who commented on a potential effective date generally  
3 supported an effective date of two years after SEC approval of final requirements,  
4 asserting that this would allow firms sufficient time to develop tools, update  
5 methodologies, and provide training on the new requirements.

6 And, lastly, the proposal noted that the IAASB published an exposure  
7 draft of proposed ISA 540 in April 2017. And a number of regulators, accounting  
8 firms, and professional associations recommended greater alignment of the  
9 proposal and the IAASB's exposure draft on ISA 540 to achieve greater  
10 consistency in practice.

11 MR. BAUMANN: We'll take any comments or thoughts about this  
12 proposed auditing standard, which we hope to move towards adoption 2018,  
13 either right now or -- Lisa is going to comment now on the auditor's use of the work  
14 of specialists. And, as was mentioned by Barbara, commenters on both the  
15 consultation paper on auditing estimates and on separate consultation paper on  
16 specialists said, given the role of specialists in complex estimates and fair-value  
17 measurements that when we adopt these two standards, they think that we should  
18 adopt them in tandem, as they should work together. So, again, if you have  
19 comments on these or what Barbara presented, please get your tent cards up,  
20 and we'll respond. And -- or wait until Lisa is finished on specialists.

21 Lisa.

22 MS. CALANDRIELLO: Thanks, Marty. Good morning. The  
23 proposal on specialists would enhance the requirements of the auditor's use of the

1 work of company specialists and for the supervision of auditor specialists, whether  
2 employed or engaged in audits under PCAOB standards.

3 So, for some background. Currently, PCAOB standards primarily  
4 apply to the -- auditors use two PCAOB standards, currently apply to the auditor's  
5 use of the work of specialists. The general standard on supervision, AS 1201,  
6 applies to auditor-employed specialists. Another standard, AS 1210, applies to  
7 the use of the work of company specialists and auditor-engaged specialists.

8 Furthermore, two fundamentally different approaches apply to the use  
9 of auditor specialists, depending on whether they're employed or engaged, even  
10 though they do fundamentally the same work. So, this proposal addressed the  
11 odd pairing.

12 Proposing to improve PCAOB standards in two basic ways,  
13 establishing a uniform, risk-based approach to testing and evaluating the work of  
14 company specialists in amendments to the standard on audit evidence, AS 1015.

15 The proposal would require auditors to, for example, evaluate the data,  
16 methods, and assumptions used by the company specialists. Importantly, the  
17 amount of required audit effort to evaluate that work would vary based on four  
18 factors, the risk of material misstatement, the significance of that specialist's work  
19 to the auditor's conclusions, the professional qualifications of the specialist, and  
20 the susceptibility of that specialist to company influence or bias.

21 The second fundamental changes would be to establish a common  
22 supervisory approach for auditor specialists, whether employed or engaged by  
23 amending AS 1201 and replacing the current AS 1210 with new requirements for

1 using the work of auditor-engaged specialists. The proposal provided more  
2 direction on how to apply the general supervisory principles of AS 1201 to the  
3 supervision of specialists, whether employed or engaged by the auditor. The  
4 proposal also had tailored requirements in certain areas where it's appropriate to  
5 differentiate between auditor-employed and auditor-engaged specialists, such as  
6 evaluating the qualifications of those specialists.

7 We received 34 comment letters across a range of constituencies on  
8 the proposal, as you can see here. Generally received a number of comments in  
9 a variety of areas. There was -- many commenters supported aligning the  
10 requirements for using specialists with the risk-assessment standards and  
11 presenting separate requirements for company specialists, auditor-employed  
12 specialists, and auditor-engaged specialists. A few commenters, though,  
13 expressed concerns over replacing the extant 1210 with a new standard, primarily  
14 because of potential burdens imposed on smaller firms and certain smaller  
15 companies.

16 There was general support for retaining the existing meaning of the  
17 term, specialist. All those who commented on this topic agreed with or didn't  
18 object to applying the proposal to those specialists currently covered by existing  
19 AS 1210.

20 Some commenters suggested that the board extend the scope to  
21 specialists in areas of information technology and tax or entirely eliminate the  
22 current distinction between expertise inside or outside the field of accounting and  
23 auditing.

1           The proposal sought comment on rescinding the current -- auditing  
2           interpretation 11, using the work of a specialist, which relates to using a specialist  
3           with transfers of financial assets. Most commenters contended that the  
4           interpretation continues to provide useful guidance to auditors and supported  
5           retaining the interpretation in some form.

6           One of the last bigger areas of comment was the economic impact on  
7           smaller accounting firms. Many expressed concerns over the proposal's impact  
8           on smaller firms, its unintended consequences, and the potential cost impact.  
9           Specifically, commenters asserted that the cost of the proposal would be relatively  
10          greater on smaller firms and certain smaller companies. The proposal would  
11          adversely affect smaller firms' ability to compete in the audit-services market.  
12          And that the incremental cost of certain aspects would outweigh any increase in  
13          audit quality.

14          And, lastly, from this perspective, that the proposal could result in a  
15          shortage of qualified specialists, largely due to the proposed requirements for  
16          assessing objectivity of the auditor-engaged specialist.

17          And then, as another high-level theme, some commenters suggested  
18          clarifications or guidance to specific requirements in the proposal. For example,  
19          how to apply the terms auditor-employed and auditor-engaged specialists when  
20          specialists are employed by affiliates of the audit firm, how to tailor the nature and  
21          extent of procedures for testing management's process when management uses  
22          a specialist, and how the auditor would test the appropriate use of data by the  
23          company specialist.

1           We also receive comments on specific aspects of the proposal. First  
2           area there is testing and evaluating the work of the company specialist. There  
3           were mixed views on the concept that the auditor should test and evaluate the  
4           work of a company specialist.

5           Comments on specific provisions in this area related primarily to the  
6           requirements to evaluate whether data was appropriately used by the specialist,  
7           testing and evaluation when the specialist uses proprietary models, and  
8           interaction of the requirements of the estimates proposal for testing  
9           management's process when management uses a specialist.

10          Specifically, requirements for understand methods and assumptions  
11          used by the company specialist and evaluating whether data was used  
12          appropriately by the company specialist.

13          We also receive comments about assessing the relationship of the  
14          company specialist to the company. Some commenters here ask for clarification  
15          of the boards expectation for the necessary level of effort to obtain information  
16          from the company-engaged specialist on the relationship to the company.

17          Others asserted that there could be practical challenges in the  
18          application of the requirement, as the entity that employs the specialist may lack a  
19          system to track the relationships, or the auditor may not have access to those  
20          systems, even if they exist.

21          Some commenters also expressed a preference for retaining the term,  
22          objectivity, with respect to the company specialist. Several commenters also  
23          asserted that the proposal did not adequately account for differences between

1 company-employed and company-engaged specialists and that the nature and  
2 extent of the audit procedures with respect to the work of a company-engaged  
3 specialist with the necessary knowledge, skill, and objectivity, should not  
4 necessarily be the same as those of a company-employed specialist.

5 We also received specific comments around assessing the objectivity  
6 of an auditor-engaged specialist. Commenters expressed concern about the  
7 statement of the proposed standard, that an auditor should not use a specialist  
8 who lacks the necessary objectivity.

9 Some of these commenters asserted that objectivity should be viewed  
10 along a spectrum, rather than as a binary decision, and that the auditor should be  
11 able to use the work of a less objective specialist, as long as the auditor performed  
12 additional procedures to test and evaluate that work.

13 Other areas of comment on the specialist proposal included guidance,  
14 as I mentioned earlier, which includes how to assess the objectivity of the entity  
15 that employs the specialist, what constitutes sufficient, appropriate audit evidence  
16 to support the assessment of objectivity, and how to apply the requirements when  
17 a company specialist uses a proprietary model.

18 We also received comments on the effective date. Similar to those  
19 comments on the estimates proposal that Barb just talked about, and some  
20 commenters emphasized the importance of having the same effective date for  
21 any new standards on using the work of specialists and auditing accounting  
22 estimates.

23 MR. BAUMANN: Thanks Lisa and Barbara. Let me just make a



1 couple of comments on this. And see if this triggers any further discussion  
2 among the group.

3 These are first of all two very important standards, as I mentioned  
4 earlier. And I think as you realized, a set of financial statements is largely a  
5 conglomeration of estimates and fair value measures.

6 There are very few numbers in financial statements that are precise  
7 numbers. There are estimates and fair value measures.

8 So, that standard is very important as estimates are growing more and  
9 more complex. And there's a greater use of estimates in financials, complex  
10 estimates and complex fair value measures.

11 So a critically important standard to update. And my perception of the  
12 comments, my view entirely, is very good comments we received.

13 But in my view, I think these are comments that are largely around the  
14 edges of things that we can address, and deal with, and move ahead. Good  
15 comments.

16 We have to deal with them. But I think we can move ahead with them.

17 The specialist in these complex estimates and fair value measures,  
18 more and more specialists are being used in audits. The point that Lisa was  
19 making about, and this came up as a real important distinction here, competitive  
20 factors.

21 Large firms typically, and maybe I see some cards up from a couple of  
22 large firms. Large firms often employ specialists.

23 And so they can supervise the actuaries and evaluation specialists

1 who are on that audit. Specialists are used because the auditor may not have  
2 those actuarial skills, evaluation skills for instance, and use the work of those  
3 specialists as part of their completion of their necessary audit procedures.

4           Smaller firms often don't have these people on their staffs. And don't  
5 engage them. But instead use the work which is currently permitted under extant  
6 standard of the company specialist who may have done work for the company in  
7 developing that accounting estimate or fair value measure.

8           The proposed standard said that -- put a higher bar on the extent of  
9 work that the auditor had to do to evaluate the work of that company specialist  
10 regarding the reasonableness of their assumptions, the data, et cetera.

11           After all, it's the auditor's opinion, not the company specialist's opinion  
12 on the financial statements. And that's where we were going with that.

13           So, that's an issue that was raised as to what type of work is  
14 appropriate with respect to the company specialist when that work is used by the  
15 auditor typically in a smaller firm as part of the audit.

16           And it really goes around the extent of testing those significant  
17 assumptions, valuating those methods, or relying on the work of that company  
18 specialist.

19           And as I said, in my own opinion, it's the auditor who's giving the  
20 opinion. And the auditor needs to understand those assumptions, methods,  
21 sufficiently to give an opinion on the financials.

22           That is an important area for us to address. And we'll work through  
23 that one. But, I think it's a -- we will work through it and come up to a good

1 answer.

2 Whose card was up first? David Kane.

3 MR. KANE: Thanks, Marty. And thanks to the staff. I thought it was  
4 a very good summary.

5 These comments are in our comment letter, so I don't want to belabor  
6 them. But just to punctuate.

7 I think on the specialist the auditing interpretation number 11, so this  
8 has to deal with the legal isolation criteria in order to get financial assets  
9 derecognized. Auditors need a legal letter today.

10 And having lived through many of those types of transactions, I can tell  
11 you that we need those letters. We're not bankruptcy specialists.

12 We spent a lot of time with the legal community developing those  
13 letters. I think lawyers are very familiar with them.

14 They understand exactly what the requirements are. Trying to take  
15 those away, I'm fearing could actually create a vacuum for us on that.

16 And I think on the same lines, auditing interpretation 28, dealing with  
17 tax work papers that was going to get proposed. Yet I think many of the concepts  
18 are in the document itself.

19 But, I think what we currently have is more targeted and specific. So I  
20 would recommend to the extent that we can retain that, I would be and advocate  
21 for that.

22 I appreciate that. Thank you.

23 MR. BAUMANN: Thanks for those comments. Just to clarify though,

1 they're somewhat different then the points I was making.

2 But you're just clarifying that there are interpretations that exist today  
3 that you think should continue to exist.

4 MR. KANE: Exactly.

5 MR. BAUMANN: Len?

6 MR. COMBS: Yes. First of all I would like to commend you guys for  
7 the job you've done on both of these standards. I think you've done a great job  
8 on two standards that cover difficult areas. And I know a lot of hard work over a  
9 long period of time has gone into that.

10 Certainly when we responded to the IAASB on their similar standard on  
11 estimates, we told them it may be beneficial for them to look to the PCAOB's  
12 proposed standard. Because we thought the framework was appropriate. And  
13 it was well written. So, thank you for that.

14 One thing I would just like to reiterate, and I think it was well  
15 summarized in both standard summaries, is in certain cases where we need to  
16 look to other third parties whether it's pricing services, whether it's, you know,  
17 other auditors of equity method investees, whether it's specialists engaged by the  
18 company and how much we need to assess their relationships with the company,  
19 or the methods used, I think there just needs to be careful consideration.

20 I know you guys are. But I just want to reemphasize this about our  
21 ability to influence and access others. Because we may not have that ability.  
22 So, the words around these are really important. I think they've been well  
23 captured in the responses. And I would just encourage you to really think about

1 that and continue to focus on that as you finalize. But well done on both the  
2 summaries and the standards where they stand so far.

3 MR. BAUMANN: Thanks, Len for those comments. So these are  
4 very complex areas, very technical standards. We've again, had a number of  
5 discussions with the SAG about these. We've had a lot of outreach.

6 The consultation paper has a lot of comment. The proposal is a has of  
7 comment. And so we have a lot of information to work with as we move ahead.

8 And so thanks to you for your comment letters.

9 ...

10 MR. JOHNSON: Marty, I waited just because I didn't want to go back  
11 to the previous recitation until there is ample opportunity for people to make  
12 comments about this.

13 But, there was one thing that Lisa said that concerned me. And you  
14 started to raise the issue. And that was in relation to the economic impact on  
15 smaller firms where they use a specialist. And I'd just like some clarification.

16 Because in the complex world that we're in, and you mentioned it a  
17 number of times that fair value estimates, et cetera, impact the financial  
18 statements. I can't see any reason where a specialist wouldn't be appointed.  
19 Whether it be internal or external in those circumstances. Irrespective of the size  
20 of the firm.

21 And could you just clarify what your thought processes might be here?  
22 We talked -- you know, we talked about scalability of auditing standards.

23 But it just worries me that if you're playing in the game, in a complex

1 situation, then you've got to abide by the rules irrespective of size of audit firm.

2 So I'm just a bit concerned when I read those comment letters or the  
3 impact of those comment letters where economics are coming into the equation.

4 And I don't see the -- I was protective of the smaller firms yesterday, vis  
5 a vis software providers and making sure that they weren't exposed.

6 But I think that the markets will get exposed if smaller firms are not  
7 prepared to invest in specialists. So, could you just clarify for me the thought  
8 processes.

9 I know you raised it as a potential issue when you needed to cover it.

10 MR. BAUMANN: I can. But Keith looks like he's ready to take a shot  
11 at it as well. So go ahead.

12 MR. WILSON: Well, I was going to say to your point about how big an  
13 issue this is, this is something we are actually trying to look at now and gather  
14 data.

15 We definitely understand the point about smaller firms needing to be  
16 able to do this. And I think that the record we get through the comments is really  
17 rather mixed.

18 Some of it is simply a function of people reading some of the  
19 requirements in a way that they think means hey, I have to go in as an auditor and  
20 re-perform exactly everything step by step that that specialist did. Which is not  
21 what the intent of the proposal is.

22 But, you know, when they read it that way, they think hey, I can't --  
23 there's no way that I could possibly do this. This is a small firm.

1 I have to go out and try to find my own specialist. That's really difficult  
2 sometimes in some maybe remote location, it's difficult to get a second specialist.

3 So they're raising these practical concerns that are in some part driven  
4 by a perception of what we're requiring. There are some others who are -- who  
5 really just have a very fond view of our existing standard that essentially allows  
6 something a little bit more like just a straight reliance on a company specialist.

7 So, there's a balance there that we're working through and trying to  
8 carefully understand the comments. Trying to think about how clear we can be  
9 on the requirements related to that.

10 And also trying to understand, I think this is a -- these are issues that  
11 are probably more confined to specific industries and specific types. And so,  
12 we're trying to get a handle on that right now.

13 MR. BAUMANN: So, again, the company specialist is working for the  
14 company and developing information for the company to record in their financial  
15 statements that the company itself probably can't do and it's relying on the  
16 specialist to calculate their actuarial liability, their benefit reserves, evaluation of  
17 some of their instruments, whatever it might be.

18 And the debate is between, well how much can the auditor rely on the  
19 evidence produced by that company specialist which is really they're producing  
20 information to be part of the financial statements. Versus how much audit testing  
21 do we have to do of that company specialist's work.

22 And that's where that balance has to be drawn. And we think we've --  
23 we think we drew a good balance. But some read it that you had to completely

1 re-perform what that specialist did versus maybe testing that work.

2 But, certainly at the far end of the extreme it's rely on it and do  
3 nothing, which is highly questionable. Right?

4 And the other end of extreme is don't rely on it at all and just get your  
5 own specialist and completely re-perform. So.

6 MR. JOHNSON: But the auditor has to be able to understand the  
7 output as well as what the inputs are. And that was my concern.

8 That it's that understanding that this, you know, the specialist has of  
9 that information. Whereas any -- any practitioner, whether it's large firm or small  
10 firm, may not have that understanding.

11 And that's just the area that concerns me. Now what is -- what is the  
12 output? Do I really understand it? And therefore, can I rely on it?

13 And that's the judgement that causes me some concern.

14 (Off mic comment)

15 MR. BAUMANN: Right. So the auditor has to understand that we're  
16 concluding. How as it done? And what were the key assumptions? And the  
17 key methods that were used?

18 Otherwise, you're sort of outsourcing part of the audit work to a  
19 third-party. Right. I do agree with you.

20 ...

21 MS. STEVENS: Thank you, Marty. And as a smaller firm we've  
22 been pretty involved in the dialogue and the reach out and the response to the  
23 earlier ones that you were bringing up.



1                   So I just -- I wanted to make sure and be clear that there's not going to  
2                   be -- that the request from the smaller firms isn't for special dispensation to not do  
3                   the procedures that are going to be prescribed.

4                   It's more in the principals and the criteria of it's not one size fits all. So  
5                   let's not default to one place. That's what the comments are related to.

6                   And I think an import -- what I get out of this, what is very important is  
7                   for investors and particularly audit communities to ask the questions and you'll  
8                   have the opportunity in the CAMs.

9                   Because a lot of the CAMs are going to be surrounded, are going to be  
10                  with respect to estimates. And by definition also to use a specialist.

11                  So, I encourage audit communities to ask the questions. And to ask  
12                  what the auditors are doing in their procedures in that context.

13                  Because I think those dialogs are going to be elevated as ARM roles  
14                  out in the practice phase that was recommended yesterday, as well as for real.

15                  ...

16                  MS. JOY: Thank you. I just wanted to reiterate the issue with the  
17                  smaller firms and the use of a specialist.

18                  And I think at the outset of the project there was concern that we  
19                  wouldn't have the ability to use specialists in the manner that we had used them  
20                  previously.

21                  Meaning that the level of work to be able to rely on them would  
22                  basically place the small firm outside of being able to use the specialist.

23                  But I don't think anybody was trying to not adhere, you know, to the

1 proposal. I think the issue was making sure that the level of work that was  
2 required recognizing that there's a reason -- there is the use of a specialist.

3 You know, and when does the auditor become the specialist? And  
4 that's really kind of the sliding scale, I think that had some of the smaller firms  
5 concerned.

6 That the pendulum would swing to a point where we effectively had to  
7 become the specialist. And then we were at a significant disadvantage in the  
8 resources that the smaller firms had.

9 But I think over the years just under the current standards, the use of a  
10 specialist and what the auditors are doing has been substantially increased just in  
11 practice anyway.

12 So I concur with the fact that you can't blindly use a specialist. You  
13 have to have a certain level of knowledge and a level of testing for reliance.

14 But it was the scale of that that I think was questionable.

15 MR. BAUMANN: And your comments refer to the company  
16 specialist?

17 MS. JOY: The company specialist. Yes. Yes.

18 MR. BAUMANN: Which is the -- generally the issue. Because most  
19 of the large firms have specialists on their staff to evaluate these complex areas of  
20 valuation, actuarial and things of that nature.

21 MS. JOY: Exactly.

22 MR. BAUMANN: All right. Well thank you everybody for -- the  
23 presentations team on these very important proposed standards which we look to

1        move forward.



1666 K Street, NW  
 Washington, D.C. 20006  
 Telephone: (202) 207-9100  
 Facsimile: (202) 862-8430  
[www.pcaobus.org](http://www.pcaobus.org)

---

AUDITING ACCOUNTING ESTIMATES,  
 INCLUDING FAIR VALUE MEASUREMENTS  
 AND AMENDMENTS TO PCAOB AUDITING  
 STANDARDS

---

) PCAOB Release No. 2018-005  
 ) December 20, 2018  
 )  
 ) PCAOB Rulemaking  
 ) Docket Matter No. 043  
 )  
 )

Summary: The Public Company Accounting Oversight Board ("PCAOB" or "Board") is adopting an auditing standard, *Auditing Accounting Estimates, Including Fair Value Measurements* and amendments to other PCAOB auditing standards. The standard strengthens and enhances the requirements for auditing accounting estimates by establishing a single standard that sets forth a uniform, risk-based approach. The auditing standard and related amendments would be applicable to all audits conducted in accordance with PCAOB standards.

Board

Contacts: Barbara Vanich, Acting Chief Auditor (202/207-9363, [vanichb@pcaobus.org](mailto:vanichb@pcaobus.org)); Keith Wilson, Deputy Chief Auditor (202/207-9134, [wilsonk@pcaobus.org](mailto:wilsonk@pcaobus.org)); Nike Adesoye, Assistant Chief Auditor (202/591-4177, [adesoyen@pcaobus.org](mailto:adesoyen@pcaobus.org)); Dominika Taraszkiewicz, Assistant Chief Auditor (202/591-4143, [taraszkiewicz@pcaobus.org](mailto:taraszkiewicz@pcaobus.org)); Karen Wiedemann, Associate Counsel (202/591-4411, [wiedemannk@pcaobus.org](mailto:wiedemannk@pcaobus.org)); Rahsan Inget, Senior Financial Economist (202/207-9392, [ingetr@pcaobus.org](mailto:ingetr@pcaobus.org)); Joon-Suk Lee, Senior Financial Economist (202/591-4460, [leej1@pcaobus.org](mailto:leej1@pcaobus.org)).

Amendments:

The Board is adopting amendments to its standards and auditing interpretations that:

- (1) Replace AS 2501, *Auditing Accounting Estimates*; and retitle the standard as *Auditing Accounting Estimates, Including Fair Value Measurements*;
- (2) Rescind:
  - AS 2502, *Auditing Fair Value Measurements and Disclosures*; and
  - AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities*;
- (3) Revise:
  - AS 1015, *Due Professional Care in the Performance of Work*;
  - AS 1105, *Audit Evidence*;
  - AS 1205, *Part of the Audit Performed by Other Independent Auditors*;
  - AS 2110, *Identifying and Assessing Risks of Material Misstatement*;
  - AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*;
  - AS 2401, *Consideration of Fraud in a Financial Statement Audit*; and
  - AS 2805, *Management Representations*;
- (4) Rescind AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501*; and
- (5) Make additional conforming amendments.

## TABLE OF CONTENTS

<b>I. Executive Summary.....</b>	<b>1</b>
<b>II. Background.....</b>	<b>3</b>
A. Rulemaking History .....	3
B. Overview of Existing Requirements .....	4
C. Existing Practice.....	7
D. Reasons to Improve Auditing Standards .....	11
<b>III. Overview of Final Rules .....</b>	<b>15</b>
<b>IV. Economic Considerations .....</b>	<b>21</b>
A. Baseline .....	22
B. Need for the Rulemaking.....	27
C. Economic Impacts .....	40
D. Alternatives Considered, Including Policy Choices .....	47
<b>V. Special Considerations for Audits of Emerging Growth Companies.....</b>	<b>52</b>
<b>VI. Applicability to Audits of Brokers and Dealers.....</b>	<b>57</b>
<b>VII. Effective Date.....</b>	<b>58</b>
<b>APPENDIX 1: AS 2501 (Revised)</b>	
<b>APPENDIX 2: Amendments to PCAOB Auditing Standards</b>	
<b>APPENDIX 3: Additional Discussion of AS 2501 (Revised) and Amendments</b>	

## **I. Executive Summary**

The Board is adopting amendments to its standards for auditing accounting estimates and fair value measurements, under which three existing standards will be replaced with a single, updated standard ("AS 2501 (Revised)" or the "new standard"). As discussed in more detail below, in the Board's view, the new standard and related amendments will further investor protection by strengthening audit requirements, applying a more uniform, risk-based approach to an area of the audit that is of increasing prevalence and significance, and updating the standards in light of recent developments.

The financial statements of most companies reflect amounts in accounts and disclosures that require estimation, which may include fair value measurements or other types of estimates. These estimates appear in items like revenues from contracts with customers, valuations of certain financial and non-financial assets, impairments of long-lived assets, allowances for credit losses, and contingent liabilities. As financial reporting frameworks evolve toward greater use of estimates, accounting estimates are becoming more prevalent and more significant, often having a significant impact on a company's reported financial position and results of operations.

By their nature, accounting estimates, including fair value measurements, generally involve subjective assumptions and measurement uncertainty, making them susceptible to management bias. Some estimates involve complex processes and methods. As a result, accounting estimates are often some of the areas of greatest risk in an audit, requiring additional audit attention and appropriate application of professional skepticism. The challenges of auditing estimates may be compounded by cognitive bias, which could lead auditors to anchor on management's estimates and inappropriately weight confirmatory over contradictory evidence.

The Board's oversight activities, which have revealed a recurring pattern of deficiencies in this area, also raise concerns about auditors' application of professional skepticism, including addressing potential management bias, in this area of the audit. Over the years, PCAOB staff has provided guidance for auditors related to auditing accounting estimates, but this area remains challenging and practices among firms vary.

Currently, three PCAOB auditing standards primarily relate to accounting estimates, including fair value measurements. These three standards, which were originally adopted between 1988 and 2003, include common approaches for substantive testing but vary in the level of detail in describing the auditor's responsibilities with respect to those approaches. In addition, because the three standards predate the Board's risk assessment standards, they do not fully integrate risk assessment requirements that relate to identifying, assessing, and responding to the risks of material misstatement in accounting estimates.

The new standard builds on the common approaches in the three existing standards and will strengthen PCAOB auditing standards in the following respects:

- Providing direction to prompt auditors to devote greater attention to addressing potential management bias in accounting estimates, as part of applying professional skepticism.
- Extending certain key requirements in the existing standard on auditing fair value measurements, the newest and most comprehensive of the three existing standards, to other accounting estimates in significant accounts and disclosures, reflecting a more uniform approach to substantive testing for estimates.
- More explicitly integrating requirements with the Board's risk assessment standards to focus auditors on estimates with greater risk of material misstatement.
- Making other updates to the requirements for auditing accounting estimates to provide additional clarity and specificity.
- Providing a special topics appendix to address certain aspects unique to auditing fair values of financial instruments, including the use of pricing information from third parties such as pricing services and brokers or dealers.

The Board is adopting the new standard and related amendments after substantial outreach, including two rounds of public comment. Commenters generally supported the Board's objective of improving the quality of audits involving accounting estimates, and suggested areas where the proposed requirements could be modified or clarified. The Board has taken all of these comments, as well as observations from PCAOB oversight activities and the relevant academic literature, into account.

In a companion release, the Board is also adopting amendments to its standards for using the work of specialists, which are often involved in developing, or assisting in the evaluation of, accounting estimates.<sup>1</sup> Certain provisions of the new standard include references to AS 1210, *Using the Work of an Auditor-Engaged Specialist*; AS 1201, *Supervision of the Audit Engagement*; and AS 1105, *Audit Evidence*, as amended.

---

<sup>1</sup> See *Amendments to Auditing Standards for Auditor's Use of the Work of Specialists*, PCAOB Release No. 2018-006 (Dec. 20, 2018) ("Specialists Release").



In its consideration of the new standard and related amendments, the Board is mindful of the significant advances in technology that have occurred in recent years, including increased use of data analysis tools and emerging technologies. An increased use of technology-based tools, together with future developments in the use of data and technology, could have a fundamental impact on the audit process. The Board is actively exploring these potential impacts through ongoing staff research and outreach.

In the context of this rulemaking, the Board considered how changes in technology could affect the processes companies use to develop accounting estimates, including fair value measurements, and the tools and techniques auditors apply to audit them. The Board believes that the new standard and related amendments are sufficiently principles-based and flexible to accommodate continued advances in the use of data and technology by both companies and auditors. The Board will continue to monitor advances in this area and any effect they may have on the application of the new standard.

The new standard and related amendments apply to all audits conducted under PCAOB standards. Subject to approval by the Securities and Exchange Commission ("SEC" or "Commission"), the new standard and related amendments will take effect for audits for fiscal years ending on or after December 15, 2020.

## **II. Background**

Accounting estimates are an essential part of financial statements. Most companies' financial statements reflect accounts or amounts in disclosures that require estimation. Accounting estimates are pervasive to financial statements, often substantially affecting a company's financial position and results of operations. Examples of accounting estimates include certain revenues from contracts with customers, valuations of financial and non-financial assets, impairments of long-lived assets, allowances for credit losses, and contingent liabilities.

The evolution of financial reporting frameworks toward greater use of estimates includes expanded use of fair value measurements that need to be estimated. For purposes of this rulemaking, a fair value measurement is considered a form of accounting estimate because it generally shares many of the same characteristics with other estimates, including subjective assumptions and measurement uncertainty.

### **A. Rulemaking History**

The PCAOB has engaged in extensive outreach to explore the views of market participants and others on the potential for improvement of the auditing standards related to accounting estimates. This includes discussions with the Board's Standing Advisory Group ("SAG") and the Pricing Sources Task Force. In addition, in August 2014, the PCAOB issued a Staff Consultation Paper, *Auditing Accounting Estimates and Fair Value Measurements* ("SCP"), to solicit comments on various issues, including

the potential need for standard setting and key aspects of a potential new standard and related requirements.

In June 2017, the Board proposed to replace three auditing standards that primarily relate to accounting estimates, including fair value measurements, with a single standard.<sup>2</sup> The proposal included a special topics appendix addressing certain matters relevant to auditing the fair value of financial instruments and amendments to several PCAOB standards to align them with the single standard. A number of commenters across many affiliations supported the Board's efforts to strengthen auditing practices and update its standards in this area.

In addition to this outreach, the Board's approach has been informed by, among other things, observations from PCAOB oversight activities and SEC enforcement actions and consideration of academic research, the standard on auditing accounting estimates recently adopted by the International Auditing and Assurance Standards Board ("IAASB"), and the extant standard on auditing accounting estimates of the Auditing Standards Board ("ASB") of the American Institute of Certified Public Accountants.

## **B. Overview of Existing Requirements**

The primary PCAOB standards that apply specifically to auditing accounting estimates, including fair value measurements are:

- AS 2501, *Auditing Accounting Estimates* (originally issued in April 1988) ("accounting estimates standard")—applies to auditing accounting estimates in general.
- AS 2502, *Auditing Fair Value Measurements and Disclosures* (originally issued in January 2003) ("fair value standard")—applies to auditing the measurement and disclosure of assets, liabilities, and specific components of equity presented or disclosed at fair value in financial statements.
- AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* (originally issued in September 2000) ("derivatives standard")—applies to auditing financial statement assertions

---

<sup>2</sup> See *Proposed Auditing Standard – Auditing Accounting Estimates, Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards*, PCAOB Release No. 2017-002 (June 1, 2017) ("proposal" or "Estimates Proposing Release").

for derivative instruments, hedging activities, and investments in securities. Its scope includes requirements for auditing the valuation of derivative instruments and securities, including those measured at fair value.

The accounting estimates standard, fair value standard, and derivatives standard are referred to collectively as the "estimates standards."

In addition, the Board's risk assessment standards,<sup>3</sup> which set forth requirements for the auditor's assessment of and response to risk in an audit, include requirements that relate to accounting estimates. These requirements involve procedures regarding identifying and assessing risks of material misstatement in accounting estimates,<sup>4</sup> identifying and evaluating misstatements in accounting estimates,<sup>5</sup> and evaluating potential management bias associated with accounting estimates.<sup>6</sup> PCAOB standards also set forth requirements for the auditor to plan and perform his or her work with due professional care, which includes the application of professional skepticism.<sup>7</sup>

Both the accounting estimates standard and the fair value standard provide that the auditor may apply one or a combination of three approaches to substantively test an accounting estimate:

- Testing management's process. This generally involves:
  - Evaluating the reasonableness of assumptions used by management that are significant to the estimate, and testing and

---

<sup>3</sup> The Board's "risk assessment standards" include AS 1101, *Audit Risk*; AS 1105; AS 1201; AS 2101, *Audit Planning*; AS 2105, *Consideration of Materiality in Planning and Performing an Audit*; AS 2110, *Identifying and Assessing Risks of Material Misstatement*; AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*; and AS 2810, *Evaluating Audit Results*.

<sup>4</sup> See generally AS 2110.13.

<sup>5</sup> See AS 2810.13.

<sup>6</sup> See AS 2810.27.

<sup>7</sup> See generally paragraph .07 of AS 1015, *Due Professional Care in the Performance of Work*.

evaluating the completeness, accuracy, and relevance of data used;<sup>8</sup> and

- Evaluating the consistency of management's assumptions with other information.<sup>9</sup>
- Developing an independent estimate. This generally involves using management's assumptions, or alternative assumptions, to develop an independent estimate or an expectation of an estimate.<sup>10</sup>
- Reviewing subsequent events or transactions. This generally involves using events or transactions occurring subsequent to the balance sheet date, but prior to the date of the auditor's report, to provide evidence about the reasonableness of the estimate.<sup>11</sup>

In general, the fair value standard, which is the most recent of the estimates standards, sets forth more detailed procedures for the common approaches described above. The level of detail within the fair value standard, however, varies.<sup>12</sup> For example, the fair value standard sets forth a number of different requirements for testing management's process but only a few general requirements for developing an independent estimate.<sup>13</sup>

The derivatives standard primarily addresses auditing derivatives. This standard also includes requirements for auditing the valuation of derivatives and investment securities, including valuations based on an investee's financial results, and testing assertions about securities based on management's intent and ability.<sup>14</sup>

---

<sup>8</sup> See generally AS 2501 and AS 2502.26–.39.

<sup>9</sup> *Id.*

<sup>10</sup> See generally AS 2501.12 and AS 2502.40.

<sup>11</sup> See generally AS 2501.13 and AS 2502.41–.42.

<sup>12</sup> See generally AS 2502.26–.40.

<sup>13</sup> See generally AS 2502.40.

<sup>14</sup> See generally AS 2503.28–.34 and .56–.57.

### **C. Existing Practice**

The PCAOB's understanding of audit practice at both larger and smaller audit firms under existing PCAOB standards has been informed by, among other things, the collective experience of PCAOB staff, observations from oversight activities of the Board, enforcement actions of the SEC, comments received on the SCP and proposal, and discussions with the SAG and audit firms.

#### *1. Overview of Existing Practice*

The PCAOB has observed through its oversight activities that some audit firms' policies, procedures, and guidance ("methodologies") use approaches that apply certain of the basic procedures for auditing fair value measurements to other accounting estimates (e.g., evaluating the method used by management to develop estimates).<sup>15</sup> The PCAOB has also observed that when testing management's process, some auditors have developed expectations of certain significant assumptions as an additional consideration in evaluating the reasonableness of those assumptions.

Over the past few years, some audit firms have updated their methodologies, often in response to identified inspection deficiencies. For example, in the area of auditing the fair value of financial instruments, some firms have directed resources to implement more rigorous procedures to evaluate the process used by third-party pricing sources to determine the fair value of financial instruments.

The PCAOB has observed diversity in how audit firms use information obtained from third-party sources in auditing fair value measurements. Such third-party sources include pricing services and brokers or dealers, which provide pricing information related to the fair value of financial instruments.<sup>16</sup>

Some larger audit firms have implemented centralized approaches to developing independent estimates of the fair value of financial instruments. These firms may use centralized, national-level pricing desks or groups to assist in performing procedures relating to testing the fair value of financial instruments. The level of information provided by these centralized groups to engagement teams varies. In some cases, the

---

<sup>15</sup> Notably, most of those firms base their methodologies largely on the standards of the IAASB or the ASB, both of which have adopted one standard for auditing both fair value measurements and other accounting estimates.

<sup>16</sup> Another type of third-party source—specialists who develop independent estimates or assist in evaluating a company's estimate or the work of a company's specialist—is addressed separately in the Specialists Release.

national-level pricing desk obtains pricing information from pricing services at the request of the engagement team. Additionally, national-level pricing desks may periodically provide information about a pricing service's controls and methodologies, and provide information on current market conditions for different types of securities to inform an engagement team's risk assessment. In other cases, the national-level pricing desk itself may develop estimates of fair value for certain types of securities, assist audit teams with evaluating the specific methods and assumptions related to a particular instrument, or evaluate differences between a company's price and price from a pricing source. Smaller audit firms that do not have a national pricing group may engage valuation specialists to perform some or all of these functions. Some smaller firms use a combination of external valuation specialists and internal pricing groups.

Commenters generally did not disagree with the description of current practice in the proposal. A few commenters pointed to additional areas where company and firm size and available resources can result in diverse audit approaches (e.g., impairment testing, estimates of environmental liabilities, and obtaining evidence related to complex transactions).

## *2. Observations from Audit Inspections*

Through its oversight activities, the PCAOB has historically observed numerous deficiencies in auditing accounting estimates. Audit deficiencies have been observed in both larger and smaller audit firms.<sup>17</sup>

PCAOB inspections staff has observed audit deficiencies in issuer audits related to a variety of accounting estimates, including revenue-related estimates and reserves, the allowance for loan losses, the fair value of financial instruments, the valuation of assets and liabilities acquired in a business combination, goodwill and long-lived asset impairments, inventory valuation allowances, and equity-related transactions. Examples of such deficiencies include failures to (1) sufficiently test the accuracy and completeness of company data used in fair value measurements or other estimates, (2) evaluate the reasonableness of significant assumptions used by management, and (3) understand information provided by third-party pricing sources. In audits of brokers or dealers, deficiencies include failures to (1) obtain an understanding of the methods and assumptions internally developed or obtained by third parties that were used by the

---

<sup>17</sup> See, e.g., *Annual Report on the Interim Inspection Program Related to Audits of Brokers and Dealers*, PCAOB Release No. 2018-003 (Aug. 20, 2018); PCAOB Staff Inspection Brief, *Preview of Observations from 2016 Inspections of Auditors of Issuers* (Nov. 2017); and *Annual Report on the Interim Inspection Program Related to Audits of Brokers and Dealers*, PCAOB Release No. 2017-004 (Aug. 18, 2017). See also *Estimates Proposing Release* at 12, footnote 39.



broker or dealer to determine fair value of securities, and (2) perform sufficient procedures to test valuation of securities. The observed deficiencies are frequently associated with, among other things, a failure to appropriately apply professional skepticism in auditing the estimates.<sup>18</sup>

More recently, there are some indications in PCAOB inspections of issuer audits that observed deficiencies in this area are decreasing, as compared to earlier years. Some audit firms have updated their audit practices in light of deficiencies identified through inspections. Not all firms have improved their practices in this area, however, and PCAOB inspections staff has continued to observe deficiencies similar to those described above. Inspection observations continue to raise concerns about auditors' application of professional skepticism, including addressing potential management bias, in auditing accounting estimates.

### 3. *Observations from Enforcement Cases*

Over the years, there have been a number of enforcement actions by the PCAOB and SEC for violations of PCAOB standards in auditing accounting estimates, demonstrating the importance of this aspect of the audit. Enforcement actions have been brought against larger and smaller firms, with domestic and international practices.

PCAOB enforcement cases related to auditing estimates have generally involved one or more of the following violations (1) failure to perform any procedures to determine the reasonableness of significant assumptions; (2) failure to test the relevance, sufficiency, and reliability of the data supporting the accounting estimates; (3) failure to perform a retrospective review of a significant accounting estimate to determine whether management's judgments and assumptions relating to the estimate indicated a possible bias; and (4) failure to adequately consider contradictory evidence

---

<sup>18</sup> Audit deficiencies have also been observed by other regulators internationally. For example, an International Forum of Independent Audit Regulators ("IFIAR") survey released in 2018 reported that accounting estimates was one of the audit areas with the highest rate and greatest number of findings. The most commonly observed deficiencies related to failures to assess the reasonableness of assumptions, including consideration of contrary or inconsistent evidence where applicable; sufficiently test the accuracy of data used; perform sufficient risk assessment procedures; take relevant variables into account; evaluate how management considered alternative assumptions; and adequately consider indicators of bias. See IFIAR, *Report on 2017 Survey of Inspection Findings* (Mar. 9, 2018), at 10 and B-6.

or perform procedures to obtain corroboration for management representations regarding accounting estimates.<sup>19</sup>

Similarly, the SEC has brought Rule 102(e) proceedings against auditors for substantive failures in auditing accounting estimates, including failures to obtain sufficient appropriate audit evidence for significant accounting estimates in an entity's financial statements and failures to exercise due professional care, including professional skepticism, throughout the audit.<sup>20</sup> In some cases, the auditor (1) obtained little, if any, reliable or persuasive evidence with respect to management's adjustments to stale appraised values; (2) failed to identify and address bias in management's estimates; or (3) failed to evaluate the results of audit procedures performed, including

---

<sup>19</sup> See, e.g., *Deloitte & Touche LLP*, PCAOB Release No. 105-2018-008 (May 23, 2018); *Tarvaran Askelson & Company, LLP, Eric Askelson, and Patrick Tarvaran*, PCAOB Release No. 105-2018-001 (Feb. 27, 2018); *David M. Burns, CPA*, PCAOB Release No. 105-2017-055 (Dec. 19, 2017); *Grant Thornton LLP*, PCAOB Release No. 105-2017-054 (Dec. 19, 2017); *Anthony Kam & Associates Limited, and Anthony KAM Hau Choi, CPA*, PCAOB Release No. 105-2017-043 (Corrected Copy) (Nov. 28, 2017); *BDO Auditores, S.L.P., Santiago Sañé Figueras, and José Ignacio Algás Fernández*, PCAOB Release No. 105-2017-039 (Sept. 26, 2017); *Kyle L. Tingle, CPA, LLC and Kyle L. Tingle, CPA*, PCAOB Release No. 105-2017-027 (May 24, 2017); *Wander Rodrigues Teles*, PCAOB Release No. 105-2017-007 (Mar. 20, 2017); *KAP Purwantono, Sungkoro & Surja, Roy Iman Wirahardja, and James Randall Leali*, PCAOB Release No. 105-2017-002 (Feb. 9, 2017); *HJ & Associates, LLC, S. Jeffrey Jones, CPA, Robert M. Jensen, CPA, and Charles D. Roe, CPA*, PCAOB Release No. 105-2017-001 (Jan. 24, 2017); *Arshak Davtyan, Inc. and Arshak Davtyan, CPA*, PCAOB Release No. 105-2016-053 (Dec. 20, 2016); *David C. Lee, CPA*, PCAOB Release No. 105-2016-052 (Dec. 20, 2016); *Arturo Vargas Arellano, CPC*, PCAOB Release No. 105-2016-045 (Dec. 5, 2016); and *Goldman Kurland and Mohidin, LLP and Ahmed Mohidin, CPA*, PCAOB Release No. 105-2016-027 (Sept. 13, 2016). See also *Estimates Proposing Release* at 13, footnote 41.

<sup>20</sup> See, e.g., *Paritz & Company, P.A., Lester S. Albert, CPA, and Brian A. Serotta, CPA*, SEC Accounting and Auditing Enforcement Release ("AAER") No. 3899 (Sept. 21, 2017); *KPMG LLP and John Riordan, CPA*, SEC AAER No. 3888 (Aug. 15, 2017); *William Joseph Kouser Jr., CPA, and Ryan James Dougherty, CPA*, AAER No. 3864 (Apr. 4, 2017); *Grassi & Co., CPAs, P.C.*, SEC AAER No. 3826 (Nov. 21, 2016). See also *Estimates Proposing Release* at 14, footnote 42.



whether the evidence obtained supported or contradicted estimates in the financial statements.<sup>21</sup>

#### **D. Reasons to Improve Auditing Standards**

The Board believes that its standards for auditing accounting estimates, including fair value measurements, can be improved to provide better direction to auditors with respect to both the application of professional skepticism, including addressing potential management bias, and the use of third-party pricing information.

First, the differences in requirements among the three estimates standards suggest that revising PCAOB standards to set forth a more uniform, risk-based approach to auditing estimates can lead to improvements in auditing practices for responding to the risks of material misstatement in accounting estimates, whether due to error or fraud.

Second, because the subjective assumptions and measurement uncertainty of accounting estimates make them susceptible to management bias, the Board believes that PCAOB standards related to auditing accounting estimates will be improved by emphasizing the application of professional skepticism, including addressing potential management bias. Although the risk assessment standards and certain other PCAOB standards address professional skepticism and management bias, the estimates standards provide little or no specific direction on how to address those topics in the context of auditing accounting estimates.

Third, existing requirements do not provide specific direction about how to evaluate the relevance and reliability of pricing information from third parties. PCAOB standards should be improved by revising the requirements in this area to drive a level of work effort commensurate with both the risks of material misstatement in the valuation of financial instruments and the relevance and reliability of the evidence obtained.

The Board received 38 comment letters on the proposal. A number of commenters supported the Board's efforts to strengthen auditing practices and update its standards related to estimates and fair value measurements. For example, investor groups asserted that the proposal will strengthen auditor responsibilities, improve audit quality, and further investor protection. Other commenters pointed to better integration and alignment with the risk assessment standards, noting, for example, that a risk-based approach to auditing estimates will help to resolve the differences in

---

<sup>21</sup> See, e.g., *Miller Energy Resources, Inc.*, Paul W. Boyd, CPA, David M. Hall, and Carlton W. Vogt, III, CPA, SEC AAER Nos. 3780 (June 7, 2016) and 3673 (Aug. 6, 2015); *Grant Thornton, LLP*, SEC AAER No. 3718 (Dec. 2, 2015).

requirements among the current standards. Some commenters supported combining the three existing standards into a single standard, for example, because it would make the requirements easier to navigate and comply with. Some commenters also expressed support for the incremental direction in the proposal on matters related to financial instruments, including the use of pricing information from third parties as audit evidence.

Some commenters on the proposal challenged the relevance of inspection experience to the Board's consideration of the new standard. For example, two commenters questioned whether the existence of audit deficiencies related to estimates warrant revision to the estimates standards. Another commenter suggested that development of standards should be based on areas where audit quality can be improved in order to protect the public interest, not just through areas that have been identified during the inspection process. In contrast, other commenters expressed concern over continued audit deficiencies observed in this area and supported the development of the proposal. Another commenter argued that a lack of clarity in the estimates standards might be a contributing factor to the persistence of audit deficiencies associated with auditing estimates and fair value measurements.

The Board believes that a pattern of deficiencies over time raises questions about whether professional skepticism is being appropriately applied and about overall audit quality in this area, and supports the view that estimates are a challenging area of the audit. More specific direction should contribute to more consistent, risk-based execution and improved audit quality.

Some commenters questioned the need for the proposal citing, among other things, insufficient evidence that existing standards are deficient and the loss of certain content from the estimates standards that the commenters considered to be useful. One commenter argued that the standards for fair value measurements should be differentiated from the standards for other accounting estimates because the goals of the standards are fundamentally different.

The Board believes it is appropriate to apply a more uniform approach to the audit of accounting estimates, including fair value measurements, including by bringing the requirements together into a single standard. The estimates standards already reflect common approaches to substantive testing. While the level of detail varies across the three standards, these differences do not derive from differences in the assessed risks of material misstatement. The Board believes that a single standard will promote auditor performance that is more consistently responsive to risk. The new standard also includes an appendix on valuation of financial instruments that provides specific direction in that area.

Some commenters asserted that the proposal would lead to unnecessary expansion of procedures and thus increased costs. For example, one of those commenters contended that the proposed requirements could affect the ability of

smaller accounting firms to audit certain types of issuers. Another commenter cautioned against a one-size-fits-all audit approach, expressing concern about expecting the same level of rigor in developing accounting estimates from both the largest and smallest public companies. One commenter challenged the scalability of the proposal, arguing that auditors will assume that all listed factors and considerations will have to be addressed in every audit, and that nothing in the proposal directed the auditor to consider cost-benefit implications or whether further testing and analysis would meaningfully improve the auditor's ability to assess the reasonableness of an estimate. Other commenters, however, asserted that the standard is sufficiently scalable.

The Board believes that the new standard is well-tailored to address an increasingly significant and challenging area of the audit. The new standard is designed to be scalable because the necessary audit evidence depends on the corresponding risks of material misstatement. The new standard does not prescribe detailed procedures or the extent of procedures, beyond the requirement to respond to risk, including significant risk, and direction for applying the primary approaches to testing. Rather, it builds on the existing requirements of AS 2301 under which the auditor designs procedures that take into account the types of potential misstatements that could result from the identified risks and the likelihood and magnitude of potential misstatement.<sup>22</sup> Specific risk factors associated with the estimates—for example, subjective assumptions, measurement uncertainty, or complex processes or methods<sup>23</sup>—affect the auditor's risk assessment and in turn, the required audit effort.

Aligning the new standard and related amendments with the risk assessment standards directs auditors to focus on estimates with greater risk of material misstatement. The new standard allows auditors to tailor their approach to best respond to identified risks and effectively obtain sufficient appropriate evidence. To the extent the new standard results in increased audit effort, that effort should be scaled in relation to the relevant risks, and any associated costs should be justified in light of the benefits of appropriate audit attention and the appropriate application of professional skepticism.

Some commenters also challenged the anticipated benefits of the proposal, arguing that additional audit work would not improve the quality of financial reporting, given the inherent uncertainty and subjectivity surrounding estimates.

The new standard and related amendments acknowledge that estimates have estimation uncertainty and that it affects the risks of material misstatement. Neither the

---

<sup>22</sup> AS 2301.09.

<sup>23</sup> See paragraph AS 2110.60A, as amended, in Appendix 2 of this release for examples of specific risk factors.

Board nor auditors are responsible for placing limits on the range of estimation uncertainty. That uncertainty is a function of the estimate's measurement requirements under the applicable financial reporting framework, the economic phenomena affecting that estimate, and the fact that it involves assessments of future outcomes. Under the new standard and related amendments, the auditor will consider estimation uncertainty in assessing risk and performing procedures in response to risk, which involves evaluating whether the accounting estimates are reasonable in the circumstances and in conformity with the applicable financial reporting framework, as well as evaluating potential management bias in accounting estimates, and its effect on the financial statements. These responsibilities align with the auditor's overall responsibility for planning and performing financial statement audits.

Commenters generally acknowledged the Board's efforts to emphasize professional skepticism, including addressing management bias, in the proposal and provided varying views on related aspects of the proposal. Some commenters, for example, indicated that the proposal should place even more emphasis on the need to challenge management or the consideration of management bias, noting the existence of overly optimistic or skewed estimates in financial statements. One commenter advocated for more discussion within the standard of the various types of bias that can affect auditing estimates.

In contrast, other commenters asserted that the proposal overemphasized the need for professional skepticism, or had a negative tone that assumed a predisposition to management bias. One commenter pointed out other practices and requirements that, in the commenter's view, mitigate the risk of management bias, among them CEO and CFO certification, management reporting and auditor attestation on internal control over financial reporting, internal audit, and audit committee oversight. Some of these commenters expressed concern that the emphasis on professional skepticism would lead to unnecessary expansion of audit procedures.

A few commenters also argued that management bias is inherent in accounting estimates and cannot be eliminated. One of the commenters added that, for those reasons, the proposed requirements addressing management bias should not apply to estimates made pursuant to the new accounting standard on credit losses.<sup>24</sup> Another commenter suggested that the proposal should differentiate between limitations that an auditor can address (e.g., analytical ability), those that can be partially addressed (e.g.,

---

<sup>24</sup> See Financial Accounting Standards Board ("FASB") Accounting Standards Update No. 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (June 2016).

some features of management bias), and those that cannot be addressed (e.g., time constraints, limits on available information).

The Board acknowledges that given the subjective assumptions and measurement uncertainty inherent in many estimates, bias cannot be eliminated entirely. However, a standard that reinforces the importance of professional skepticism, including addressing the potential for management bias, when auditing estimates will remind auditors of their existing responsibilities to evaluate contradictory evidence and to address the effects of bias on the financial statements.

Some commenters suggested that the standard include guidance on identifying and testing relevant controls over accounting estimates. For example, one commenter suggested guidance related to auditor consideration of management's controls over selection and supervision of a company specialist. Another commenter suggested additional guidance on identification and testing of relevant controls, and identification and response to risks of material misstatement due to fraud in relation to auditing estimates.

The auditor's responsibilities for testing controls are already addressed in AS 2110, AS 2301, and AS 2201, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements*. These requirements apply to controls over accounting estimates. Those responsibilities are not altered by the new standard and related amendments. However, after considering the comments, an amendment was made to provide additional direction on testing controls related to auditing estimates. The amendment is discussed in more detail in Appendix 3 to this release.

### **III. Overview of Final Rules**

The Board is adopting a single standard to replace the accounting estimates standard, the fair value standard, and the derivatives standard. As described in more detail in Appendix 3 to this release, AS 2501 (Revised) includes a special topics appendix that addresses certain matters relevant to auditing the fair value of financial instruments. In addition, several PCAOB auditing standards will be amended to align them with the new standard on auditing accounting estimates. The new standard and related amendments will make the following changes to existing requirements:

- Provide direction to prompt auditors to devote greater attention to addressing potential management bias in accounting estimates, as part of applying professional skepticism. In this regard, the new standard and related amendments will:
  - Amend AS 2110 to require a discussion among the key engagement team members of how the financial statements could



be manipulated through management bias in accounting estimates in significant accounts and disclosures.

- Emphasize certain key requirements to focus auditors on their obligations, when evaluating audit results, to exercise professional skepticism, including evaluating whether management bias exists.
- Remind auditors that audit evidence includes both information that supports and corroborates the company's assertions regarding the financial statements and information that contradicts such assertions.
- Require the auditor to identify significant assumptions used by the company and describe matters the auditor should take into account when identifying those assumptions.
- Provide examples of significant assumptions (important to the recognition or measurement of the accounting estimate), such as assumptions that are susceptible to manipulation or bias.
- Emphasize requirements for the auditor to evaluate whether the company has a reasonable basis for the significant assumptions used and, when applicable, for its selection of assumptions from a range of potential assumptions.
- Explicitly require the auditor, when developing an independent expectation of an accounting estimate, to have a reasonable basis for the assumptions and method he or she uses.
- Require that the auditor obtain an understanding of management's analysis of critical accounting estimates and take that understanding into account when evaluating the reasonableness of significant assumptions and potential management bias.
- Recast certain existing requirements using terminology that encourages maintaining a skeptical mindset, such as "evaluate" and "compare" instead of "corroborate."
- Strengthen requirements for evaluating whether data was appropriately used by a company that build on requirements in the fair value standard, and include a new requirement for evaluating whether a company's change in the source of data is appropriate.
- Clarify the auditor's responsibilities for evaluating data that build on the existing requirements in AS 1105.

- Amend AS 2401, *Consideration of Fraud in a Financial Statement Audit*, to clarify the auditor's responsibilities when performing a retrospective review of accounting estimates and align them with the requirements in the new standard.
- Extend certain key requirements in the fair value standard to other accounting estimates in significant accounts and disclosures to reflect a more uniform approach to substantive testing. For estimates not currently subject to the fair value standard, this will:
  - Refine the three substantive approaches common to the accounting estimates standard to include more specificity, similar to the fair value standard.
  - Describe the auditor's responsibilities for testing the individual elements of the company's process used to develop the estimate (i.e., methods, data, and significant assumptions).
  - Set forth express requirements for the auditor to evaluate the company's methods for developing the estimate, including whether the methods are:
    - In conformity with the requirements of the applicable financial reporting framework; and
    - Appropriate for the nature of the related account or disclosure, taking into account the auditor's understanding of the company and its environment.
  - Require the auditor to take into account certain factors in determining whether significant assumptions that are based on the company's intent and ability to carry out a particular course of action are reasonable.
- Further integrate requirements with the risk assessment standards to focus auditors on estimates with greater risk of material misstatement. The new standard and related amendments incorporate specific requirements relating to accounting estimates into AS 2110 and AS 2301 to inform the necessary procedures for auditing accounting estimates. Specifically, the new standard and related amendments would:
  - Amend AS 2110 to include risk factors specific to identifying significant accounts and disclosures involving accounting estimates.

- Align the scope of the new standard with AS 2110 to apply to accounting estimates in significant accounts and disclosures.
- Amend AS 2110 to set forth requirements for obtaining an understanding of the company's process for determining accounting estimates.
- Require auditors to respond to significantly differing risks of material misstatement in the components of accounting estimates, consistent with AS 2110.
- Remind auditors of their responsibility to evaluate conformity with the applicable financial reporting framework, reasonableness, and potential management bias and its effect on the financial statements when responding to the risks of material misstatement in accounting estimates in significant accounts and disclosures.
- Require the auditor, when identifying significant assumptions, to take into account the nature of the accounting estimate, including related risk factors, the applicable financial reporting framework, and the auditor's understanding of the company's process for developing the estimate.
- Include matters relevant to identifying and assessing risks of material misstatement related to the fair value of financial instruments.
- Add a note in AS 2301 to emphasize that performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.
- Add a note to AS 2301 providing that for certain estimates involving complex models or processes, it might be impossible to design effective substantive tests that, by themselves, would provide sufficient appropriate evidence regarding the assertions.
- Make other updates to the requirements for auditing accounting estimates, including:
  - Update the description of what constitutes an accounting estimate to encompass the general characteristics of the variety of accounting estimates, including fair value measurements, in financial statements.



- Set forth specific requirements for evaluating data and pricing information used by the company or the auditor that build on the existing requirements in AS 1105.
- Establish more specific requirements for developing an independent expectation that vary depending on the source of data, assumptions, or methods used by the auditor and build on AS 2810 to provide a requirement when developing an independent expectation as a range.
- Relocate requirements in the derivatives standard for obtaining audit evidence when the valuation of investments is based on investee results as an appendix to AS 1105.
- Provide specific requirements and direction to address auditing the fair value of financial instruments, including:
  - Establish requirements to determine whether pricing information obtained from third parties, such as pricing services and brokers or dealers, provides sufficient appropriate evidence, including:
    - Focus auditors on the relevance and reliability of pricing information from third-party sources,<sup>25</sup> regardless of whether the pricing information was obtained by the company or the auditor.
    - Establish factors that affect relevance and reliability of pricing information obtained from a pricing service.
    - Require the auditor to perform additional audit procedures to evaluate the process used by the pricing service when fair values are based on transactions of similar financial instruments.
    - Require the auditor to perform additional procedures on pricing information obtained from a pricing service when no recent transactions have occurred for either the financial instrument being valued or similar financial instruments.

---

<sup>25</sup> The requirements in this area focus primarily on pricing information from pricing services and brokers or dealers, but also cover pricing information obtained from other third-party pricing sources, such as exchanges and publishers of exchange prices.

- Establish conditions under which less information is needed about particular methods and inputs of individual pricing services in circumstances where prices are obtained from multiple pricing services.
- Establish factors that affect the relevance and reliability of quotes from brokers or dealers.
- Require the auditor to understand, if applicable, how unobservable inputs were determined and evaluate the reasonableness of unobservable inputs.

The Board seeks to improve the quality of auditing in this area and believes these changes strengthen and enhance the requirements for auditing accounting estimates.

Commenters largely supported a single, more uniform standard to address auditing accounting estimates, including fair value measurements. For example, one commenter observed that the existence of three related standards in this area made it difficult for auditors to navigate to be certain that all requirements were met. A few commenters, however, asserted that fair value measurements and derivatives are unique and involve different functions. One of those commenters also expressed concern about applying audit procedures in the fair value standard to other accounting estimates. The new standard takes into account the unique aspects of auditing fair value measurements, such as the use of observable and unobservable inputs. Further, the new standard includes a separate appendix that addresses auditing the fair value of financial instruments.

Some commenters requested supplemental or implementation guidance for various requirements presented in the proposed standard and the related amendments. Several commenters also advocated for retaining portions of the derivatives standard that, in their view, provided helpful guidance. Two commenters suggested that the Board consider issuing guidance specific to the audits of brokers and dealers. Appendix 3 of this release discusses comments received on specific requirements and provides additional guidance on the implementation of the requirements in the new standard.

A few commenters observed that the proposal did not explicitly address how advances in technology, including use of data analytics, could affect audit procedures. In its consideration of the new standard and related amendments, the Board is mindful of the significant advances in technology that have occurred in recent years, including increased use of data analysis tools and emerging technologies. An increased use of these technology-based tools, together with future developments in the use of data and

technology, could have a fundamental impact on the audit process. The Board is actively exploring these potential impacts through ongoing staff research and outreach.<sup>26</sup>

In the context of this rulemaking, the Board considered how changes in technology could affect the approaches to auditing accounting estimates. The Board believes that the new standard and related amendments are sufficiently principles-based and flexible to accommodate continued advances in the use of data and technology by both companies and auditors. The Board will continue to monitor advances in this area and any implications related to the standard.<sup>27</sup>

Some commenters advocated for greater alignment of the proposal with the IAASB's exposure draft on International Standard on Auditing 540 ("ISA 540")<sup>28</sup> to achieve greater consistency in practice, and suggested continued coordination of efforts in this area. The Board considered the IAASB's ISA 540 project while developing the new standard. While there is some commonality between the new standard and ISA 540 Revised, as described in Appendix 3, the new standard is aligned with the Board's risk assessment standards and designed for audits of issuers and SEC-registered brokers and dealers.

#### **IV. Economic Considerations**

The Board is mindful of the economic impacts of its standard setting. The economic analysis describes the baseline for evaluating the economic impacts of the new standard, analyzes the need for the changes adopted by the Board, and discusses potential economic impacts of the new standard and related amendments, including the potential benefits, costs, and unintended consequences. The analysis also discusses the alternatives considered. There are limited data and research findings available to estimate quantitatively the economic impacts of discrete changes to auditing standards

---

<sup>26</sup> For example, the staff is currently researching the effects on the audit of, among other things, data analytics, artificial intelligence, and distributed ledger technology, assisted by a task force of the SAG. See Data and Technology Task Force overview page, available on the Board's website.

<sup>27</sup> See PCAOB, *Changes in Use of Data and Technology in the Conduct of Audits* (available at <https://pcaobus.org/Standards/research-standard-setting-projects/Pages/data-technology.aspx>).

<sup>28</sup> See IAASB Exposure Draft, Proposed ISA 540 (Revised), *Auditing Accounting Estimates and Related Disclosures*, (Apr. 20, 2017). In October 2018, the IAASB released the final standard ("ISA 540 Revised"). Appendix 3 of this release provides a comparison of the requirements of the new standard to ISA 540 Revised.

in this area, and furthermore, no additional data was identified by commenters that would allow the Board to generally quantify the expected economic impacts (including expected incremental costs related to the proposal) on audit firms or companies. Accordingly, the Board's discussion of the economic impact is qualitative in nature.

The Board sought information relevant to economic consequences over the course of the rulemaking. The Board has considered all the comments received and has developed an economic analysis that evaluates the potential benefits and costs of the final requirements and facilitates comparison to alternative actions considered.

Commenters who discussed the economic analysis in the Board's proposal provided a range of views. A number of commenters agreed with the economic analysis relating to the need for the proposal. Some commenters agreed with the potential benefits outlined in the proposal, including an increase in investor confidence and consistency in the application of requirements. At the same time, other commenters cautioned against raising expectations among investors about the impact of the proposal on audit quality by noting various inherent limitations that the auditor faces in auditing estimates. A number of commenters suggested that additional audit work required by the new standard would increase cost without necessarily improving audit quality related to auditing estimates. In addition, some commenters expressed concern that some of the increase in cost might be passed through to companies in the form of increased audit fees.

#### **A. Baseline**

Sections II.B–C above discuss the Board's current requirements for auditing accounting estimates, including fair value measurements, and current practices in the application of those requirements. This section expands on the current practices of the profession and currently observed patterns.

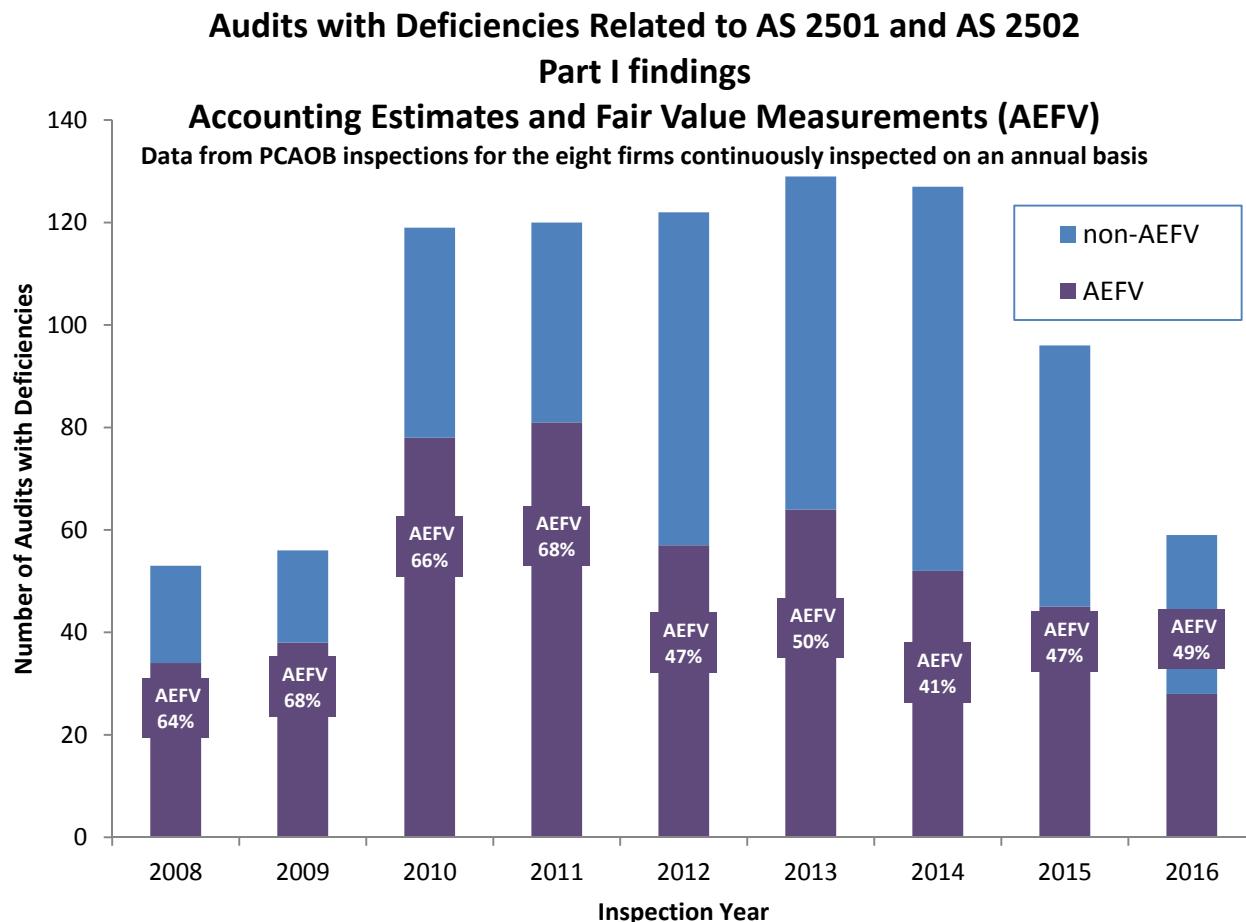
As discussed earlier, the PCAOB has historically observed numerous deficiencies in auditing accounting estimates.<sup>29</sup> PCAOB staff gathered data from reported inspection findings related to issuer audits between 2008 and 2016 for the eight accounting firms that have been inspected every year since the PCAOB's inspection program began.<sup>30</sup> The chart below shows the number of audits with

---

<sup>29</sup> See Section II.C.2 for discussion of observations from audit inspections.

<sup>30</sup> The eight accounting firms are BDO USA, LLP; Crowe Horwath LLP; Deloitte & Touche LLP; Ernst & Young LLP; Grant Thornton LLP; KPMG LLP; PricewaterhouseCoopers, LLP; and RSM US LLP (formerly McGladrey, LLP).

deficiencies related to the accounting estimates standard and fair value standard based on the 2008–2016 reported inspection findings<sup>31</sup> for those eight firms.<sup>32</sup>



<sup>31</sup> Deficiencies related to the derivatives standard were infrequent over the inspection period reviewed, and therefore considered insignificant for purposes of this analysis.

<sup>32</sup> The chart identifies the audits with deficiencies reported in the public portion of inspection reports. It shows the relative frequency of audits with deficiencies citing the existing accounting estimates standard or the existing fair value standard compared to the total audits with deficiencies for that year. For example, in inspection year 2010, 66% of all audits with deficiencies had at least one deficiency related to the accounting estimates standard or the fair value standard (total 2016 reported inspection findings are based on preliminary results).

Audits that had deficiencies related to the estimates standards represent a significant number of total audits with deficiencies (including deficiencies in audits of internal control over financial reporting) although the overall percentage has declined since 2011.<sup>33</sup> This is consistent with a recent PCAOB Staff Inspection Brief, which observed that during the 2016 inspection cycle, inspections staff continued to find high numbers of deficiencies and "identify instances in which auditors did not fully understand how the issuer's estimates were developed or did not sufficiently test the significant inputs and evaluate the significant assumptions used by management."<sup>34</sup> Given the pattern of the data, one can conclude that, although deficiencies were increasing in the early periods, more recently they have declined. Despite this recent decline, the deficiencies have remained high over an extended period.

Accounting estimates are prevalent and significant in financial reporting, as confirmed by academic research and supported with empirical evidence. For example, Griffith et al. note that complex accounting estimates, including fair value measurements, impairments, and valuation allowances, are increasingly important to financial statements.<sup>35</sup> In addition, some studies provide evidence on the significance of accounting estimates by using large samples of critical accounting policy ("CAP") disclosures and critical accounting estimate ("CAE") disclosures.<sup>36</sup> Levine and Smith, using a large sample of CAP disclosures from annual filings, estimate that on average

---

<sup>33</sup> PCAOB inspection reports for the same eight firms covering the inspection period from 2004 to 2009 similarly found deficiencies in auditing fair value measurements, including impairments and other estimates. See also Bryan Church and Lori Shefchik, *PCAOB Inspections and Large Accounting Firms*, 26 Accounting Horizons 43 (2012).

<sup>34</sup> See PCAOB Staff Inspection Brief, *Preview of Observations from 2016 Inspections of Auditors of Issuers*, at 7. For a more detailed discussion of observations from audit inspections, see Section II.C.2.

<sup>35</sup> See Emily Griffith, Jacqueline S. Hammersley, Kathryn Kadous, and Donald Young, *Auditor Mindsets and Audits of Complex Estimates*, 53 Journal of Accounting Research 49 (2015).

<sup>36</sup> SEC, *Proposed Rule Disclosure in Management's Discussion and Analysis about the Application of Critical Accounting Policies*, Release No. 33-8098 (May 10, 2002), 67 FR 35620 (May 20, 2002); and SEC, *Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations*, Exchange Act Release No. 48960 (Dec. 29, 2003), 68 FR 75055 (Dec. 29, 2003).



issuers disclose 6.46 policies as critical, with a median of 6.<sup>37</sup> Their analysis shows that issuers most frequently disclose policies relating to fair value measurements and estimates.<sup>38</sup> Glendening, in his 2017 study, uses a large sample of CAE disclosures data covering 2002-2010 and finds that on average about half of the issuers in his sample disclose such estimates every year, with the disclosure rate increasing over time.<sup>39</sup> In Glendening's sample, on average, firms disclose between two and three critical accounting estimates. Also, commenters generally agreed with the characterization that financial reporting has continued to require more accounting estimates that involve complex processes and have a significant impact on companies' operating results and financial positions.

Academic research also confirms the challenges auditors face in auditing estimates, including fair value measurements. Griffith et al., in providing a brief summary of the relevant literature, note that, while accounting estimates are increasingly important to financial statements, auditors experience "difficulty in auditing complex estimates, suggesting that audit quality may be low in this area."<sup>40</sup> Martin, Rich, and Wilks attribute much of the difficulty in auditing fair value measurements to estimation based on future conditions and events and also note that auditors face many of the same challenges when auditing other accounting estimates.<sup>41</sup> Cannon and Bedard, using a survey of auditors, find that features such as "management assumptions, complexity, subjectivity, proprietary valuations, and a lack of verifiable data...all contribute to the challenges in auditing [fair value measurements]."<sup>42</sup> Other studies point to the lack of sufficient knowledge on the part of auditor or management as a contributing factor to auditing challenges. Griffith et al. report that "[i]nsufficient valuation knowledge is problematic in that relatively inexperienced auditors, who also

---

<sup>37</sup> See Carolyn B. Levine and Michael J. Smith, *Critical Accounting Policy Disclosures*, 26 *Journal of Accounting, Auditing & Finance* 39, 48 (2011).

<sup>38</sup> *Id.* at 49–50.

<sup>39</sup> See Matthew Glendening, *Critical Accounting Estimate Disclosures and the Predictive Value of Earnings*, 31 (4) *Accounting Horizons* 1, 12 (2017).

<sup>40</sup> See Griffith et al., *Auditor Mindsets and Audits of Complex Estimates* 50.

<sup>41</sup> See Roger D. Martin, Jay S. Rich, and T. Jeffrey Wilks, *Auditing Fair Value Measurements: A Synthesis of Relevant Research*, 20 *Accounting Horizons* 287, 289 (2006).

<sup>42</sup> See Nathan Cannon and Jean C. Bedard, *Auditing Challenging Fair Value Measurements: Evidence from the Field*, 92 *The Accounting Review* 81, 82 (2017).

likely lack knowledge of how their work fits into the bigger picture, perform many audit steps, even difficult ones such as preparation of independent estimates."<sup>43</sup> Glover et al. find similar issues with expertise from management's side, with results that indicate that a majority of audit partners participating in their survey reported encountering problems with "management's lack of valuation process knowledge."<sup>44</sup>

In addition to the findings regarding auditing challenges, academic research provides evidence on auditors' use of the available approaches for testing an accounting estimate. A study by Griffith et al. suggests that, among the three approaches available under current standards, auditors primarily choose to test management's process, rather than use subsequent events or develop an independent estimate.<sup>45</sup> In doing so, some auditors tend to verify management's assertions on a piecemeal basis; the authors of the study argue that this may result in overreliance on management's process rather than a critical analysis of the estimate. Another study by Glover et al., however, finds that auditors primarily use the approach of testing management's process when auditing lower-risk or typical complex estimates and are more likely to use a combination of substantive approaches as the complexity and associated risk of the estimate increase.<sup>46</sup>

---

<sup>43</sup> See Emily Griffith, Jacqueline S. Hammersley, and Kathryn Kadous, *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*, 32 *Contemporary Accounting Research* 833, 836 (2015).

<sup>44</sup> See Steven M. Glover, Mark H. Taylor, and Yi-Jing Wu, *Current Practices and Challenges in Auditing Fair Value Measurements and Complex Estimates: Implications for Auditing Standards and the Academy*, 36 *Auditing: A Journal of Practice & Theory* 63, 82 (2017).

<sup>45</sup> See Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice* 841.

<sup>46</sup> See Glover et al., *Current Practices and Challenges in Auditing Fair Value Measurements and Complex Estimates: Implications for Auditing Standards and the Academy* 65. See also Cannon and Bedard, *Auditing Challenging Fair Value Measurements: Evidence from the Field* 81, 82-83. Glover et al. provide additional insight regarding auditor's selection of substantive testing approaches, specifically, the use of developing independent estimates and reviewing subsequent events and transactions. Glover et al., *Current Practices and Challenges in Auditing Fair Value Measurements and Complex Estimates: Implications for Auditing Standards and the Academy* 69, 71. The study shows that, in developing independent estimates, availability of independent data, availability of verifiable data, and the reliability of management's estimates are the most commonly cited factors that drive auditors'



## **B. Need for the Rulemaking**

From an economic perspective, the primary reasons to improve PCAOB standards for auditing accounting estimates are as follows:

- The subjective assumptions and measurement uncertainty of accounting estimates make them susceptible to potential management bias. The Board believes that PCAOB standards related to auditing accounting estimates will be improved by emphasizing the application of professional skepticism, including addressing potential management bias. Although the risk assessment standards and certain other PCAOB standards address professional skepticism and management bias, the estimates standards provide little or no specific direction on how to address those topics in the context of auditing accounting estimates.
- Existing requirements do not provide specific direction about how to evaluate the relevance and reliability of pricing information from third parties and might have led to additional work and cost for some audits. PCAOB standards should be improved by revising the requirements in this area to drive a level of work effort commensurate with both the risks of material misstatement in the valuation of financial instruments and the relevance and reliability of the evidence obtained.
- The differences among the three existing estimates standards suggest that revising PCAOB standards to set forth a more uniform, risk-based approach to auditing estimates should lead to improvements in auditing practices in responding to the risks of material misstatement in accounting estimates, whether due to error or fraud.

Economic theory provides an analytical framework for the Board's consideration of these potential needs, as discussed below.

### *1. Principal-Agent Problems and Bounded Rationality*

Principal-agent theory is commonly used to describe the economic relationship between investors and managers, and the attendant information and incentive problems

---

decisions to use management's versus the audit team's assumptions. Regarding the use of reviewing subsequent events and transactions, over 96% of the participating auditors in the study report using the most recent trades that have occurred in the market to support the fair values of recorded securities.

that result from the separation of ownership and control.<sup>47</sup> The presence of information asymmetry<sup>48</sup> in such a principal-agent relationship results in an inherent incentive problem (moral hazard)<sup>49</sup> where the objectives of the agent (management) may differ from the objectives of the principal (investors), such that the actions of management may be suboptimal from the investors' perspective. For example, academic research suggests that management may engage in earnings management, in which they choose reporting methods and estimates that do not adequately reflect their companies' underlying economics, for a variety of reasons, including to increase their own compensation and job security.<sup>50</sup> The information asymmetry between investors and managers also leads to an information problem (adverse selection)<sup>51</sup> resulting in a

---

<sup>47</sup> For studies of principal-agent relationships and the attendant information and incentive problems in the context of the separation of ownership and control of public companies and its implications in financial markets, see, e.g., Michael C. Jensen and William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 *Journal of Financial Economics* 305 (1976).

<sup>48</sup> Economists often describe "information asymmetry" as an imbalance, where one party has more or better information than another party. For a discussion of the concept of information asymmetry, see, e.g., George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 *The Quarterly Journal of Economics* 488 (1970).

<sup>49</sup> The moral hazard problem is also referred to as a hidden action, or agency problem in economics literature. The term "moral hazard" refers to a situation in which an agent could take actions (such as not working hard enough) that are difficult to monitor by the principal and would benefit the agent at the expense of the principal. To mitigate moral hazard problems, the agent's actions need to be more closely aligned with the interests of the principal. Monitoring is one mechanism to mitigate these problems. See, e.g., Bengt Holmström, *Moral Hazard and Observability*, 10 *The Bell Journal of Economics* 74 (1979).

<sup>50</sup> See Paul M. Healy and James M. Wahlen, *A Review of the Earnings Management Literature and Its Implications for Standard Setting*, 13 (4) *Accounting Horizons* 365 (1999). For a seminal work on the agency problem between managers and investors, see Jensen and Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*.

<sup>51</sup> Adverse selection (or hidden information) problems can arise in circumstances where quality is difficult to observe, including in principal-agent relationships where the principal's information problem means it cannot accurately assess the quality of the agent or the agent's work. In addition to diminishing the principal's ability to optimally select an agent, the problem of adverse selection can manifest in markets more

higher cost of capital,<sup>52</sup> because investors may not be able to accurately assess the quality of management or of management reporting.

In addition to the potential incentive problem, cognitive biases, such as management optimism or overconfidence, can manifest themselves in managerial behavior.<sup>53</sup> The academic literature suggests that individuals often overstate their own capacity and rate their attributes as better than average.<sup>54</sup> Moreover, evidence indicates that, on average, CEOs and CFOs tend to be more optimistic than the broader population.<sup>55</sup> For example, managerial overconfidence has been linked to aggressive earnings forecasts by management.<sup>56</sup>

---

broadly, leading to an undersupply of higher-quality products. For a discussion of the concept of adverse selection, see, e.g., Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*.

<sup>52</sup> See, e.g., Richard A. Lambert, Christian Leuz, and Robert E. Verrecchia, *Information Asymmetry, Information Precision, and the Cost of Capital*, 16 (1) Review of Finance 1, 21 (2012).

<sup>53</sup> For a discussion of the manifestation of overconfidence in managerial behavior, see, e.g., Anwer S. Ahmed and Scott Duellman, *Managerial Overconfidence and Accounting Conservatism*, 51 (1) Journal of Accounting Research 1 (2013); Itzhak Ben-David, John R. Graham, and Campbell R. Harvey, *Managerial Miscalibration*, 128 (4) The Quarterly Journal of Economics 1547 (2013); and Catherine M. Schrand and Sarah L.C. Zechman, *Executive Overconfidence and the Slippery Slope to Financial Misreporting*, 53 Journal of Accounting and Economics 311, 320 (2012).

<sup>54</sup> This and other biases are discussed in, among others, Gilles Hilary and Charles Hsu, *Endogenous Overconfidence in Managerial Forecasts*, 51 Journal of Accounting and Economics 300 (2011).

<sup>55</sup> See John R. Graham, Campbell R. Harvey, and Manju Puri, *Managerial Attitudes and Corporate Actions*, 109 Journal of Financial Economics 103, 104 (2013). Managerial attitude has been linked to a variety of corporate decisions, including corporate investment and mergers & acquisitions. See Ulrike Malmendier and Geoffrey Tate, *CEO Overconfidence and Corporate Investment*, 60 The Journal of Finance 2661 (2005); and Ulrike Malmendier and Geoffrey Tate, *Who Makes Acquisitions? CEO Overconfidence and the Market's Reaction*, 89 Journal of Financial Economics 20 (2008).

<sup>56</sup> See Paul Hribar and Holly Yang, *CEO Overconfidence and Management Forecasting*, 33 Contemporary Accounting Research 204 (2016).

Given the degree of subjectivity in many financial statement estimates, these incentive and information issues, coupled with cognitive biases, present particular problems in the context of estimates. Managerial biases (conscious or otherwise) may lead managers to pick a more favorable estimate within the permissible range.<sup>57</sup> That is, incentive problems and cognitive biases may push management toward the most favorable estimates, either with respect to specific accounts or in the overall presentation.

Audits are one of the mechanisms for mitigating the information and incentive problems arising in the investor-management relationship.<sup>58</sup> Audits are intended to provide a check of management's financial statements, and thus reduce management's potential incentive to prepare and disclose biased or inaccurate financial statements. Audit reports and auditing standards provide information to the market that may affect perceptions about the reliability of the financial statements and therefore mitigate investors' information problem, potentially lowering the company's cost of capital.<sup>59</sup>

The auditor is also an agent of investors, however, and the information asymmetry between investors and auditors can also give rise to risks of moral hazard and adverse selection. Auditors have incentives that align their interests with those of investors, such as legal considerations, professional responsibilities, and reputational concerns. However, they may also have incentives to behave sub-optimally from investors' point of view by, for example, (1) not sufficiently challenging management's estimates or underlying assumptions in order not to disturb the client relationship; (2) shirking, if they are not properly incentivized to exert the effort considered optimal by shareholders; or (3) seeking to maximize profits and/or minimize costs—sometimes at the expense of audit quality. As a result of such misaligned incentives, auditors may engage in practices that do not align with investors' needs and preferences.

---

<sup>57</sup> For purposes of this discussion, a "favorable" estimate can reflect either an upward or a downward bias, for example in earnings, depending on management incentives.

<sup>58</sup> See Paul M. Healy and Krishna G. Palepu, *Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature*, 31 *Journal of Accounting and Economics* 405, 406 (2001). See also Mark DeFond and Jieying Zhang, *A Review of Archival Auditing Research*, 58 *Journal of Accounting and Economics* 275 (2014).

<sup>59</sup> See, e.g., Richard A. Lambert, Christian Leuz, and Robert E. Verrecchia, *Accounting Information, Disclosure, and the Cost of Capital*, 45 *Journal of Accounting Research* 385 (2007).

In addition to the auditor's potential moral hazard problem, the presence of bounded rationality can inject another layer of challenges into auditing estimates. In economic theory, bounded rationality refers to the idea that when individuals make decisions, their rationality may be limited by certain bounds, such as limits on available information, limits on analytical ability, limits on the time available to make the decision, and inherent cognitive biases.<sup>60</sup> Even if incentives between principal and agent are aligned, the agent, being boundedly rational, may be unable to execute appropriately. Hence, some auditors may find auditing certain estimates challenging because, like all individuals, they may have limits on their ability to solve complex problems and to process information,<sup>61</sup> especially when faced with time constraints.<sup>62</sup> Research has shown that even sell-side research analysts, generally understood to be sophisticated financial experts, have trouble assessing the impact on earnings of companies' derivative instruments, where the associated financial reporting involves fair value measurements.<sup>63</sup>

---

<sup>60</sup> For a seminal work in this field, see Herbert A. Simon, *A Behavioral Model of Rational Choice*, 69 *The Quarterly Journal of Economics* 99 (1955). Simon introduced this theory and argued that individuals cannot assimilate and process all the information that would be needed to maximize their benefits. Individuals do not have access to all the information required to do so, but even if they did, they would be unable to process it properly, since they are bound by cognitive limits.

<sup>61</sup> Daniel Kahneman refers to the mind as having two systems, System 1 and System 2. "System 1 operates automatically and quickly..." System 2 is the slower one that "can construct thoughts in an orderly series of steps." System 2 operations "require attention and are disrupted when attention is drawn away." Daniel Kahneman, *Thinking, Fast and Slow* 4, 20–22 (1st ed. 2011). Examples of System 2 operations include "[f]ill[ing] out a tax form" and "[checking] the validity of a complex logical argument," both of which require time and attention. Without time, one cannot dedicate attention to a task and fully engage System 2, and hence is left with the automatic instinctual operation of System 1, which can lead to use of rules of thumb (heuristics) and "biases of intuition." *Id.*

<sup>62</sup> Time is an essential limitation to problem solving, being fundamental to the definition of bounded rationality—"the principle that organisms have limited resources, such as time, information, and cognitive capacity, with which to find solutions to the problems they face." Andreas Wilke and R. Mata, *Cognitive Bias*, as published in *The Encyclopedia of Human Behavior* 531 (2nd ed. 2012).

<sup>63</sup> See Hye Sun Chang, Michael Donohoe, and Theodore Sougiannis, *Do Analysts Understand the Economic and Reporting Complexities of Derivatives?* 61 *Journal of Accounting and Economics* 584 (2016). For a discussion of the bounded rationality of



In the context of auditing estimates, one such bound may be the ability of auditors to analyze and integrate different existing standards or process the information required to audit estimates that involve complex processes, which may require sophisticated analytical and modeling techniques. In the presence of bounded rationality, individuals may resort to heuristics (i.e., rules of thumb).<sup>64</sup> In particular, auditors facing challenges in auditing an accounting estimate may resort to simplifications that might increase the potential for biases or errors that have seeped into financial statements to go undetected.<sup>65</sup>

The literature has linked cognitive issues to auditors' actions and attitudes, specifically to professional skepticism.<sup>66</sup> For example, "research in psychology and accounting has identified that auditors' judgments are vulnerable to various problems, such as difficulty recognizing patterns of evidence, applying prior knowledge to the current judgment task, weighting evidence appropriately, and preventing incentives from affecting judgment in unconscious ways."<sup>67</sup> As a result, cognitive limitations may pose a

---

audit judgments, see Brian Carpenter and Mark Dirsmith, *Early Debt Extinguishment Transactions and Auditor Materiality Judgments: A Bounded Rationality Perspective*, 17 (8) Accounting, Organizations and Society 709, 730 (1992) ("[T]he self-reported actions taken by auditors on actual engagements appear to reveal less complexity in the sense that they are boundedly rational and tend to emphasize only a single judgment criterion than do the cognitive judgment processes of which they are capable.").

<sup>64</sup> "The essence of bounded rationality is thus to be a 'process of thought' rather than a 'product of thought': Individuals have recourse to reasonable procedures rather than to sophisticated computations which are beyond their cognitive capacities." Bertrand Munier, Reinhard Selten, D. Bouyssou, P. Bourguine et al., *Bounded Rationality Modeling*, 10 Marketing Letters 233, 234 (1999). In "[s]ituations where evolved task-general procedures are helpful (heuristics, chunks)...agents have difficulty finding even qualitatively appropriate responses...agents are then left with heuristics..." *Id.* at 237.

<sup>65</sup> For a discussion and examples of heuristics used by auditors, see, e.g., Stanley Biggs and Theodore Mock, *An Investigation of Auditor Decision Processes in the Evaluation of Internal Controls and Audit Scope Decisions*, 21 (1) Journal of Accounting Research 234 (1983).

<sup>66</sup> Nelson argues that "[p]roblem-solving ability, ethical predisposition, and other traits like self-confidence and tendency to doubt are all related to [professional skepticism] in judgment and action," and, furthermore "[c]ognitive limitations affect [professional skepticism] in predictable ways." Mark Nelson, *A Model and Literature Review of Professional Skepticism in Auditing*, 28 Auditing: A Journal of Practice & Theory 1, 2 (2009).

<sup>67</sup> *Id.* at 6.

threat to professional skepticism<sup>68</sup> and "[b]ias-inducing tendencies can lead even the brightest, most experienced professionals, including auditors, to make suboptimal judgments."<sup>69</sup> Accordingly, the existence of bounded rationality and, in particular, some inherent cognitive biases might affect auditor judgment when auditing accounting estimates, even separate from any potential conflict of interest.

Some of the biases that might affect auditors include, but are not limited to:

- Anchoring Bias—decision makers anchor or overly rely on specific information or a specific value and then adjust to that value to account for other elements of the circumstance, so that there is a bias toward that value. In the auditing of estimates, the potential exists for anchoring on management's estimates.<sup>70</sup> This can be seen as a manifestation of findings that auditors may, at times, experience difficulties weighting evidence appropriately.<sup>71</sup>
- Confirmation Bias—a phenomenon wherein decision makers have been shown to actively seek out and assign more weight to evidence that confirms their hypothesis, and ignore or underweight evidence that could disconfirm their hypothesis. As such, confirmation bias can be thought of as a form of selection bias in collecting evidence. It becomes even more problematic in the presence of anchoring bias, since auditors may anchor on management's estimate and may only seek out information to corroborate that value (or focus primarily on confirming, rather than

---

<sup>68</sup> "[A]uditors' judgments can be flawed because, like all people, sometimes they do not consistently follow a sound judgment process and they fall prey to systematic, predictable traps and biases. People, including experienced professionals ... often unknowingly use mental "shortcuts" ... to efficiently navigate complexity...[S]ituations can arise where they systematically and predictably lead to suboptimal judgments and potentially inhibit the application of appropriate professional skepticism." Steven M. Glover and Douglas F. Prawitt, *Enhancing Auditor Professional Skepticism* (Nov. 2013) (a report commissioned by the Standards Working Group of the Global Public Policy Committee), at 10.

<sup>69</sup> *Id.*

<sup>70</sup> For a discussion on anchoring biases and some evidence, see, e.g., Robert Sugden, Jiwei Zheng, and Daniel John Zizzo, *Not All Anchors Are Created Equal*, 39 *Journal of Economic Psychology* 21 (2013).

<sup>71</sup> Nelson, *A Model and Literature Review of Professional Skepticism in Auditing* 6.

challenging, management's model).<sup>72</sup> For example, in the accounting estimates standard, as one of the available three approaches in evaluating the reasonableness of an estimate, the auditor is instructed to "develop an independent expectation of the estimate to *corroborate* the reasonableness of management's estimate" (emphasis added).<sup>73</sup>

- Familiarity Bias—"Familiarity is associated with a general sense of comfort with the known and discomfort with—even distaste for and fear of—the alien and distant."<sup>74</sup> In the context of auditing accounting estimates, auditors may be biased toward procedures, methods, models, and assumptions that seem more familiar to them, and auditors' familiarity with management may lead them to tend to accept management's assertions without sufficient challenge or consideration of other options.<sup>75</sup>

All of these cognitive biases would pose a threat to the proper application of professional skepticism and an appropriate focus on the potential for management bias in accounting estimates. Academic research illustrates how cognitive biases may affect auditing. Griffith et al. find that auditors focus primarily on confirming, rather than challenging, management's model, and appear to accept management's model as a starting point and then verify aspects of that model.<sup>76</sup> None of the auditors in the study

---

<sup>72</sup> For a discussion of confirmation bias, see, e.g., Raymond S. Nickerson, *Confirmation Bias: A Ubiquitous Phenomenon in Many Guises*, 2 *Review of General Psychology* 175 (1998). For a discussion of the manifestation of this bias in auditing, see, e.g., Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*.

<sup>73</sup> AS 2501.10b.

<sup>74</sup> Gur Huberman, *Familiarity Breeds Investment*, 14 *Review of Financial Studies* 659, 678 (2001).

<sup>75</sup> Academic research also argues and provides evidence that some level of auditor familiarity with the client can help the auditing process. See Wuchun Chi and Huichi Huang, *Discretionary Accruals, Audit-Firm Tenure and Audit-Partner Tenure: Empirical Evidence from Taiwan*, 1 (1) *Journal of Contemporary Accounting and Economics* 65, 67 (2005). Although the study does not address familiarity bias, the results indicate that auditor familiarity with the client produces higher earnings quality as it has an effect on learning experience and increases client-specific knowledge, while excessive familiarity impairs audit quality, resulting in lower earnings quality.

<sup>76</sup> See Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*.



indicated that he or she considered whether additional factors beyond the assumptions made by management should be included in management's model. This type of behavior is suggestive of anchoring bias.<sup>77</sup>

Importantly, bounded rationality and the associated biases exist in addition to any incentive problems (moral hazard). Cognitive biases and moral hazard could work in the same direction to increase the likelihood of auditors agreeing with management, not considering contradictory evidence, or discounting the potential importance or validity of alternative methods, data, and assumptions. It is important for auditors to be wary of their own biases as well as management's biases when auditing accounting estimates (e.g., in order to avoid merely searching for evidence that corroborates management's assertions).<sup>78</sup>

It is also logical to conclude that the potential for bias increases in the presence of measurement uncertainty, since there is more latitude in recording an estimate in such circumstances. Academic studies find that the measurement uncertainty associated with accounting estimates can be substantial.<sup>79</sup> Martin, Rich, and Wilks point out that fair value measurements frequently incorporate forward-looking information as well as judgments, and that, since future events cannot be predicted with certainty, an element of judgment is always involved.<sup>80</sup> The measurement uncertainty inherent in estimates allows room for both management bias and error to affect preparers' valuation

---

<sup>77</sup> The problem resulting from this bias can be ameliorated, but not completely eliminated. The audit, by its nature, uses the company's financial statements as a starting point. For that reason, starting with management's number is often unavoidable since the auditor is opining on whether the company's financial statements are fairly presented, in all material respects, in conformity with the applicable financial reporting framework. When reference is made to anchoring bias in this release, it is therefore not intended to refer to the auditor's responsibility to start with management's financial statements, but instead to the auditor's potential failure to effectively challenge management.

<sup>78</sup> See, e.g., Martin et al., *Auditing Fair Value Measurements: A Synthesis of Relevant Research*.

<sup>79</sup> See, e.g., Brant E. Christensen, Steven M. Glover, and David A. Wood, *Extreme Estimation Uncertainty in Fair Value Estimates: Implications for Audit Assurance*, 31 *Auditing: A Journal of Practice & Theory* 127 (2012); Cannon and Bedard, *Auditing Challenging Fair Value Measurements: Evidence from the Field*.

<sup>80</sup> See Martin et al., *Auditing Fair Value Measurements: A Synthesis of Relevant Research*.

judgments, and estimates become less useful to capital market participants as they become less reliable.<sup>81</sup>

To help auditors overcome, or compensate for, potential biases and identify situations where management is consistently optimistic, and to discourage shirking, the new standard emphasizes the auditor's existing responsibility to apply professional skepticism, including addressing potential management bias. It does so by emphasizing these professional obligations in the specific context of auditing accounting estimates. It also includes revised terminology to describe the nature of the auditor's responsibility and the new requirements described in Section III to guide the auditor in the appropriate application of professional skepticism, including addressing potential management bias, when auditing estimates.

Some commenters on the proposal were supportive of a new standard taking into consideration management bias and emphasizing the application of professional skepticism while some others highlighted the difficulties in evaluating and identifying management bias in accounting estimates due to the uncertainty and subjectivity involved. Some commenters were critical of "negative" tone or overemphasis on management bias and the application of professional skepticism. Some commenters, on the other hand, recommended that the new standard further expand the discussion and emphasis of management bias and the need to challenge management's assertions. As discussed above, the Board believes that reinforcing the importance of professional skepticism when auditing estimates, in light of the potential for management bias, will remind auditors of their responsibilities to evaluate contradictory evidence and to address the effects of bias on the financial statements.

## *2. Fostering a More Efficient Audit*

### *a. Tailoring Requirements for Different Types of Pricing Information*

The new standard requires different audit procedures for the different types of third-party pricing information used for fair value measurements of financial instruments, and is intended to drive a level of work effort commensurate with both the risks of material misstatement in the valuation of financial instruments and the relevance and reliability of the evidence obtained. Existing requirements do not provide specific direction about how to evaluate the relevance and reliability of pricing information from

---

<sup>81</sup> See, e.g., Russell Lundholm, *Reporting on the Past: A New Approach to Improving Accounting Today*, 13 Accounting Horizons 315 (1999); and Griffith et al., *Audits of Complex Estimates as Verification of Management Numbers: How Institutional Pressures Shape Practice*.

third parties and might have led to additional work and cost for some audits and insufficient work and effort for some audits. Under the new standard, auditors will be prompted to direct more effort toward pricing information that may be more subject to bias or error based on the type of instrument being valued and how or by whom the pricing information is generated. For certain types of third parties—specifically, pricing services and brokers or dealers—the new standard provides more specific direction.

The Board understands that pricing information generated by pricing services generally tends to have three main characteristics not shared by other estimates (1) uniformity of product (with little to no differentiation across users, so there is less risk of inherent bias); (2) work of the pricing service that, in most cases, is not prepared at the direction of a particular client; and (3) buyers of the product with little, if any, market power. These characteristics reduce the risk of bias, unless the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service. The potential for bias is further attenuated for pricing services since there is monitoring by the market as a whole, and most of the prices provided by these services are for traded securities or for securities for which quotes are available or for which similar securities are traded. Overall, the Board believes that these characteristics contribute to a lower risk of bias in information provided by pricing services relative to other estimates and warrant tailored audit requirements.

The Board believes that there also are differences between the information provided by pricing services on the one hand, and brokers or dealers on the other, that warrant differential treatment. Based on outreach and observations from the Board's oversight activities, the Board understands that pricing services tend to accumulate overall market information, rather than engage directly in market transactions, and typically have well-defined methodologies that are used consistently over time. Therefore, they tend to provide customers with more uniform pricing information. Brokers or dealers, on the other hand, are in the business of providing liquidity to the market (by acting as a buyer or seller) and connecting buyers and sellers. As such, it is likely their pricing is more idiosyncratic (i.e., dependent on the party asking for a quote, timing, and other factors related to the business operations of the broker or dealer) and brokers or dealers may occasionally be less transparent in pricing the instruments. In addition, not all brokers or dealers necessarily have a firm-wide methodology, as they typically provide prices on an as-requested basis. Therefore, the Board believes that auditors' consideration of pricing information obtained from a broker or dealer should differ from their consideration of pricing information from a pricing service.

The issue of different types of pricing information provided by third-party sources is addressed in the special topics appendix of the new standard. This appendix more broadly addresses auditing financial instruments and includes procedures specific to an auditor's use of evidence from third-party pricing sources. These procedures allow the auditor to use pricing information from pricing sources used by the company in some

circumstances (e.g., generally in cases where the company uses a pricing service based on trades of similar instruments to value securities with a lower risk of material misstatement). This would be an appropriate risk-based audit response, since there is a lower chance of management bias when the company uses a pricing service.

One commenter who provided views on the third-party pricing information agreed that the reliability of the pricing information from the third-party pricing sources may differ and that factors covered in the proposal captured that variability. A few commenters also asserted that third-party pricing services generally provide pricing that is free from influence of any one user of the services, and one of these commenters opined that this absence of management bias increased the relevance and reliability of the evidence. In addition, one commenter suggested inclusion of differences in valuation approaches of pricing services as an additional factor in evaluating reliability. Although the differences in valuation approaches could create biased valuations, auditors are required to evaluate the relevance and reliability of pricing information provided by pricing services.

b. Multiple Standards With Overlapping Requirements

Having multiple standards with similar approaches but varying levels of detail in procedures may create unnecessary problems. Perceived inconsistencies among existing standards may result in (1) different auditor responsibilities for accounts for which a similar audit approach would seem appropriate; (2) inconsistent application of standards; and (3) inappropriate audit responses.

Academic research speaks to the undesirable nature of overlapping standards addressing the same issue, which adds to task difficulty<sup>82</sup> and may, therefore, create unnecessary additional costs, as it is costly to sift through the standards and reconcile potential conflicts. These costs may exacerbate the principal-agent and cognitive challenges discussed above. For example, auditors might, consciously or otherwise, apply the standards in a manner that satisfies their objectives but not those of investors (e.g., auditors may choose an approach with fewer procedures and requirements to minimize audit cost, or for expediency, hence maximizing their profits). The existence of overlapping requirements might also lead to uncertainty about compliance, if auditors do not understand what is required. Finally, overlapping requirements may increase perceived uncertainty about audit quality, since market participants may not fully understand what standard is being, or even should be, applied.

---

<sup>82</sup> See Brian Bratten, Lisa Milici Gaynor, Linda McDaniel, Norma R. Montague, and Gregory E. Sierra, *The Audit of Fair Values and Other Estimates: The Effects of Underlying Environmental, Task, and Auditor-Specific Factors*, 32 *Auditing: A Journal of Practice & Theory* 7, 15–16 (2013).

To address the issues stemming from having multiple, overlapping estimates standards, the new standard replaces the existing three standards related to auditing accounting estimates. Moreover, it aligns the requirements with the risk assessment standards through targeted amendments to promote the development of appropriate responses to the risks of material misstatement related to accounting estimates.

A number of commenters supported the development of a single standard to replace the three existing standards. For example, some noted that a single, consistent set of requirements aligned with the risk assessment standards would provide greater uniformity and clarity and eliminate the need to navigate among three related standards in order to ensure that all requirements were met. On the other hand, one commenter cautioned that a single standard would lead to a one-size-fits-all audit approach and not allow the tailoring of audit procedures based on the issuer-specific risks of material misstatement. By aligning with the risk assessment standards and describing the basic requirements for testing and evaluating estimates, the Board believes the new standard is designed to allow auditors to tailor their procedures in order to respond to specific risks of material misstatement.

### 3. *Lack of Market Solutions*

The issues discussed above are not, and cannot efficiently be, addressed through market forces alone because the auditor may not be fully incentivized to address them and market forces may not be effective in making the auditor more responsive to investors' concerns regarding the auditing of estimates. The auditor may not be fully incentivized because auditors may incur additional costs to produce higher audit quality but would earn lower profits on the audit, since audit quality may not be observable<sup>83</sup> and auditors may be unable to charge more for better audits.<sup>84</sup>

---

<sup>83</sup> An "audit is a credence service in that its quality may never be discovered by the company, the shareholders or other users of the financial statements. It may only come into question if a 'clean' audit report is followed by the collapse of the company." See Alice Belcher, *Audit Quality and the Market for Audits: An Analysis of Recent UK Regulatory Policies*, 18 *Bond Law Review* 1, 5 (2006). Credence services are difficult for users of the service (such as investors in the context of company audit services) to value because their benefits are difficult to observe and measure. See also Monika Causholli and W. Robert Knechel, *An Examination of the Credence Attributes of an Audit*, 26 *Accounting Horizons* 631 (2012).

<sup>84</sup> The general effect of cost pressures on audit quality has been studied in the academic literature with varying empirical findings. See, e.g., James L. Bierstaker and Arnold Wright, *The Effects of Fee Pressure and Partner Pressure on Audit Planning Decisions*, 18 *Advances in Accounting* 25 (2001); B. Pierce and B. Sweeney, *Cost-Quality Conflict in Audit Firms: An Empirical Investigation*, 13 *European Accounting*



Furthermore, because investors are diverse and geographically distributed, they face a potential collective action problem that creates additional barriers to jointly negotiating with auditors over requirements for auditing accounting estimates.

For the mitigation of this collective action problem and other potential sources of market failure,<sup>85</sup> investors generally rely on auditing standards that are based on investor and public interests. PCAOB auditing standards establish performance requirements that, if not implemented, can result in costly penalties to the auditor in the form of litigation and reputational risk.

### **C. Economic Impacts**

#### *1. Benefits*

The new standard should lead to two broad categories of benefits. The first relates directly to audit quality and the second relates to fostering an efficient risk-based approach to auditing accounting estimates, including fair value measurements. The new standard strengthens auditor responsibilities for auditing accounting estimates, including fair value measurements, which should increase the likelihood that auditors detect material misstatements, and more explicitly integrates the risk assessment standards, which should encourage a uniform approach to achieve a more efficient and risk-based audit response. These improvements should enhance audit quality and, in conjunction with the clarification of the procedures the auditor should perform, should provide greater confidence in the accuracy of companies' financial statements.<sup>86</sup> From a capital market perspective, an increase in the information quality of companies' financial statements resulting from improved audit quality can reduce the non-diversifiable risk to investors and generally should result in investment decisions by investors that more

---

Review 415 (2004); and Scott D. Vandervelde, *The Importance of Account Relations When Responding to Interim Audit Testing Results*, 23 *Contemporary Accounting Research* 789 (2006).

<sup>85</sup> For a discussion of the concept of market failure, see, e.g., Francis M. Bator, *The Anatomy of Market Failure*, 72 *The Quarterly Journal of Economics* 351 (1958); and Steven G. Medema, *The Hesitant Hand: Mill, Sidgwick, and the Evolution of the Theory of Market Failure*, 39 *History of Political Economy* 331 (2007).

<sup>86</sup> For a discussion on the relationship between audit quality and financial reporting quality, see DeFond and Zhang, *A Review of Archival Auditing Research* 275, 281 ("...[A]udit quality is a component of financial reporting quality, because high audit quality increases the credibility of the financial reports. This increased credibility arises through greater assurance that the financial statements faithfully reflect the [company's] underlying economics.").

accurately reflect the financial position and operating results of each company, increasing the efficiency of capital allocation decisions.<sup>87</sup>

The extent of these benefits, which are discussed further below, will largely depend on the extent to which firms have to change their practices and methodologies. Benefits will be less in the case of firms that have already adopted practices and methodologies similar to the requirements being proposed.

First, the new standard should reduce the problems generated by moral hazard and potential cognitive biases by strengthening the performance requirements for auditing accounting estimates and by emphasizing the importance of addressing potential management bias and the need to maintain a skeptical mindset while auditing accounting estimates. Reinforcing the need for professional skepticism should encourage auditors, for example, to "refram[e] hypotheses so that confirmation biases favor [professional skepticism]," and thereby mitigate the effect of such biases on auditor judgment.<sup>88</sup> It should encourage auditors to be more conscious when weighing audit evidence and should reduce instances where auditors fail to consider contradictory evidence. For example, the use of terms such as "evaluate" and "compare" instead of "corroborate," and greater emphasis on auditors identifying the significant assumptions in accounting estimates should promote a more deliberative approach to auditing estimates, rather than a mechanical process of looking for evidence to support management's assertions. Academic research also provides

---

<sup>87</sup> See, e.g., Lambert et al., *Accounting Information, Disclosure, and the Cost of Capital*, 388 (finding that information quality directly influences a company's cost of capital and that improvements in information quality by individual companies unambiguously affect their non-diversifiable risks.); and Ahsan Habib, *Information Risk and the Cost of Capital: Review of the Empirical Literature*, 25 *Journal of Accounting Literature* 127, 128 (2006) ("[H]igh quality auditing could provide credible information in the market regarding the future prospect of the [company] and hence could reduce the cost of capital in general, and cost of equity capital in particular."). See also Jukka Karjalainen, *Audit Quality and Cost of Debt Capital for Private Firms: Evidence from Finland*, 15 *International Journal of Auditing* 88 (2011).

<sup>88</sup> Nelson, *A Model and Literature Review of Professional Skepticism in Auditing 2*. In addition, another experimental study found other factors, such as improved cognitive tools, might be necessary to enhance the use of professional judgment and critical thinking skills. See Anthony Bucaro, *Enhancing Auditors' Critical Thinking in Audits of Complex Estimates*, *Accounting, Organizations and Society* 1, 11 (2018).

evidence on the effect of framing in the context of auditors' fair value judgments.<sup>89</sup> In an experimental study, Cohen et al. found that when one group of auditors were instructed to "support and oppose" management's assertions, they recommended significantly different fair value estimates than another group of auditors who were instructed to "support" management's assertions.

Several commenters on the proposal supported the emphasis on professional skepticism and one commenter agreed that the new requirements would prompt auditors to devote greater attention to identifying and addressing management bias. Moreover, some commenters confirmed that raising awareness of cognitive biases and including reminders of professional skepticism could help mitigate the effects of auditors' own biases. In addition, a few commenters supported the change in terminology and agreed that it would further reinforce the application of professional skepticism by moving from a corroborative mindset to an evaluation mindset, while one commenter expressed skepticism about the impact of terminology on auditor behavior. Some commenters noted the difficulties and limitations in evaluating and identifying management bias in accounting estimates due to the uncertainty and subjectivity involved. Given the subjective assumptions and inherent measurement uncertainty in many estimates, bias may not be eliminated entirely. However, the Board believes that a standard that reinforces the application of professional skepticism and reminds auditors of risk of management bias and their responsibilities to evaluate contradictory evidence and to address the effects of bias can help ameliorate the problems resulting from this bias.

Second, requirements specific to the use of pricing information from third parties as audit evidence should lead to a more efficient audit as these new requirements will prompt more tailored audit procedures (including by performing procedures over groups of similar instruments, where appropriate) and direct more audit effort toward pricing information that may be more subject to bias or error.

Third, in addition to achieving these efficiencies, the new standard should lead to a better allocation of auditing resources more generally by aligning more closely with the risk assessment standards, with more hours, effort, and work being dedicated to higher-risk areas. Essentially, the new standard should lead to increased audit quality for harder-to-measure estimates (e.g., estimates with high inherent subjectivity) due to enhanced procedures and should lead to an increase in efficiency for easier-to-measure and lower-risk estimates.

---

<sup>89</sup> See Jeffrey Cohen, Lisa Gaynor, Norma Montague, and Julie Wayne, *The Effect of Framing on Information Search and Information Evaluation in Auditors' Fair Value Judgments* (Feb. 2016) (working paper, available in Social Science Research Network).



Fourth, uniformity of the standards should lead to benefits to auditors and users of financial statements. A single, consistent set of requirements should lead to more consistent and efficient audits with greater comparability since there should be no doubt as to what requirements to apply, and no need to navigate among multiple standards to make sure that all relevant requirements are met. In turn, assuming that firms comply with the new requirements, this should increase and make more uniform the quality of the information presented in the financial statements. Having a uniform set of requirements might also enhance the audit committee's understanding of the auditor's responsibilities and, therefore, potentially facilitate communications between the audit committee and the auditor. Moreover, a single standard will facilitate the development of timely guidance for specific issues when needed.

Finally, establishing more clarity and specificity in requirements for estimates should lead to efficiency gains by providing auditors with a better understanding both of their duties and of the Board's expectations, reducing the risk that auditors would perform unnecessary or ineffective procedures. Hence, holding audit quality constant, auditors should gain efficiencies.

Overall, these changes should lead to greater confidence in financial statements, reducing investors' information asymmetry. Reinforcing and clarifying auditors' responsibilities should enhance investors' trust that auditors are obtaining sufficient appropriate evidence regarding management's accounting estimates, thereby increasing investors' confidence in companies' financial statements and the corresponding audit work performed. Also, the new standard may lead to fewer restatements as a result of increased audit quality for higher-risk estimates and, hence, increase investor confidence in financial statements. Increased confidence in companies' financial statements should ameliorate investors' information asymmetry problem (adverse selection) and allow for more efficient capital allocation decisions.

Some commenters on the proposal cautioned against raising investor expectations about the impact of auditing procedures on the reliability and accuracy of accounting estimates and expressed skepticism about potential benefits related to investor confidence and audit quality. For example, citing the inherent uncertainty and judgment involved in estimates, some argued that unreasonable bias would be difficult to detect and a level of bias and uncertainty would remain irrespective of the level of audit effort. While auditing cannot eliminate the uncertainty and judgment involved in estimates, it can help identify material omissions and errors. Furthermore, even if more robust auditing procedures do not yield more accuracy and precision for each individual estimate, to the extent that any pattern of bias or error can be eliminated, this should result in more reliable financial reporting. The financial statements as a whole may not be fairly presented if the most optimistic estimates are consistently selected by the preparer even when each individual estimate is within a reasonable range. Emphasizing the risk of management bias in accounting estimates and the auditor's responsibility to

apply professional skepticism can help focus auditors on the effects of management bias on financial statements.

## 2. Costs

The Board recognizes that imposing new requirements may result in additional costs to auditors and the companies they audit. In addition, to the extent that auditors pass on any increased costs through an increase in audit fees, companies and investors could incur an indirect cost.

Auditors may incur certain fixed costs (costs that are generally independent of the number of audits performed) related to implementing the new standard and related amendments. These include costs to update audit methodologies and tools, prepare training materials, and conduct training. Larger firms are likely to update methodologies using internal resources, whereas smaller firms are more likely to purchase updated methodologies from external vendors.

In addition, auditors may incur certain variable costs (costs that are generally dependent on the number of audits performed) related to implementing the new standard. These include costs of implementing the standard at the audit engagement level (e.g., in the form of additional time and effort spent on the audit). For example, the new standard requires, in some instances, performing more procedures related to assessing risk and testing the company's process, such as evaluating which of the assumptions used by the company are significant. This could impose additional costs on auditors and require additional management time.

Recurring costs (fixed or variable) may also increase if firms decide to increase their use of specialists in response to the final auditing requirements. If this were to occur, it may in particular affect firms that do not currently employ or engage specialists and instead rely on the work of company specialists for some of their audit engagements, potentially affecting the competitiveness of such firms for such audit engagements.<sup>90</sup>

---

<sup>90</sup> The PCAOB staff analyzed inspection data to assess the baseline for auditors' use of the work of specialists and existing practice in the application of those requirements. The PCAOB observed that the firms that do not currently employ or engage auditor's specialists and use the work of company specialists tend to be smaller audit firms. The PCAOB staff also found that smaller audit firms generally have comparatively few audit engagements in which they use the work of company specialists. See the Specialists Release for additional discussion.

To the extent the new standard and related amendments require new or additional procedures, they may increase costs. For example, the amendment to AS 2110.52 requires the auditor to include, as part of the key engagement team members' discussion of the potential for material misstatement due to fraud, how the financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures. The new requirement focuses the auditor's attention on a risk that is particularly relevant to accounting estimates and further underscores the importance of applying professional skepticism in this area. The additional requirement could increase costs.

The new standard's impact on the auditor's fixed and variable costs will likely vary depending on, among other things, the extent to which the requirements have already been incorporated in accounting firms' audit methodologies or applied in practice by individual engagement teams. For example, the new standard sets minimum requirements when using pricing information obtained from third-party pricing sources, so audit firms that are doing less than the minimum requirements will likely experience higher cost increases. In addition, the standard's impact could vary based on the size and complexity of an audit. All else equal, any incremental costs generally are expected to be scalable: higher for larger, more complex audits than for smaller, less complex audits.

The economic impact of the new standard on larger accounting firms and smaller accounting firms may differ. For example, larger accounting firms will likely take advantage of economies of scale by distributing fixed costs (e.g., updating audit methodologies) over a larger number of audit engagements. Smaller accounting firms will likely distribute their fixed costs over fewer audit engagements. However, larger accounting firms will likely incur greater variable costs than smaller firms, because larger firms more often perform larger audits and it seems likely that these larger audits will more frequently involve accounting estimates with complex processes. It is not clear whether these costs (fixed and variable), as a percentage of total audit costs, will be greater for larger or for smaller accounting firms. One commenter on the proposal cautioned that the costs associated with implementing the new standard might be significant for some smaller firms; however, this commenter also noted that many of the smaller firms applying analogous requirements of other standard setters (e.g., ISA 540) would already have methodologies in place that addressed many of the requirements in the new standard. Another commenter asserted that any new standard would have a disproportionate impact on medium-sized accounting firms and their clients, as compared with larger firms and their clients. Additionally, one commenter noted that passing any incremental costs on to clients might be especially difficult for smaller firms. The Board believes that the new standard and related amendments are risk-based and scalable for firms of all sizes, and that any related cost increases are justified by expected improvements in audit quality.

In addition to the auditors, companies being audited may incur costs related to the new standard and related amendments, both directly and indirectly. Companies could incur direct costs from engaging with or otherwise supporting the auditor performing the audit. Some companies could face costs of providing documents and responding to additional auditor requests for audit evidence, due to a more rigorous evaluation of the company's assumptions and methods. Companies may also incur costs if, as a result of the new standard, auditors need to discuss additional information with audit committees relating to accounting estimates. In addition, to the extent that auditors are able to pass on at least part of the increased costs they incur by increasing audit fees, companies and investors could incur an indirect cost. Some commenters on the proposal raised concerns that some of the increased costs, including the costs associated with requests for additional data and pricing information from third parties, might be passed through to companies in the form of increased audit fees. One commenter asserted that the proposal would in effect require some companies to increase their use of quantitative models that employ mathematical and statistical techniques producing precise calculations. The Board acknowledges the possibility of increased costs to companies related to the new requirements, but believes that it is reasonable to expect corresponding increases in audit quality, which will benefit companies and investors as well as auditors, as discussed in the previous section.

Some commenters argued that the new requirements would likely lead to significant expansion of audit procedures, documentation, and/or use of specialists, with limited incremental benefit. In addition, a few commenters raised concerns that the requirements could result in increased or duplicative work for issuers with no perceived benefit. The Board believes that the scalable, risk-based approach of the new standard allows auditors to tailor their procedures to respond to the risks. By aligning with the risk assessment standards and setting forth a framework for testing and evaluating procedures, the new standard is designed to require more audit effort for accounting estimates with higher risk of material misstatement, where greater benefits are expected, and less audit effort for estimates with lower risk of material misstatement, where lower potential benefits are expected. In some areas, such as evaluating the relevance and reliability of pricing information provided by third-party pricing sources, the new standard may result in decreased audit effort and decreased costs, where justified by lower risk of material misstatement.

### 3. *Unintended Consequences*

One potential unintended consequence of replacing three existing standards with one standard might be a perceived loss of some explanatory language, since the new standard is intended to eliminate redundancies in the current standards. The Board believes that the new standard and related amendments, interpreted as described in this release, should provide adequate direction. However, the PCAOB will monitor implementation to determine whether additional interpretive guidance is necessary.

Another possible unintended consequence may result if an auditor exploits the latitude allowed under the new standard for using information from the company's third-party pricing source, but does so inappropriately. The new standard does, however, set forth specific direction for evaluating the relevance and reliability of such information from the third-party pricing source.

One commenter also cautioned that perceived information sharing by third-party pricing sources beyond contractual agreements could induce market data originators to stop sharing their confidential market data with pricing services. The Board does not seek to impose obligations on auditors to obtain pricing information beyond what is available under prevailing subscriber arrangements. Clarifications reflected in the requirements with respect to grouping of financial instruments also should help alleviate concerns in this area.

Finally, a few commenters on the proposal presented other potential unintended consequences. For example, one commenter cautioned that auditors may expand procedures performed unnecessarily, not as a response to increased risk, but due to fear of inspections. The Board believes that a single, uniform set of requirements with more clarity and specificity should provide auditors with a better understanding both of their duties and of the Board's expectations and reduce the risk that auditors would perform unnecessary procedures due to fear of inspections.

Another commenter pointed to the risk of cost spillover to private company audits, where PCAOB standards are not legally required but may nevertheless be applied. Pursuant to its statutory mandate under the Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley"), the Board sets standards for audits of issuers and SEC-registered brokers and dealers based on considerations of investor protection and the public interest in the preparation of informative, accurate, and independent audit reports. The Board does not have authority either to require or to prohibit application of its standards in other contexts, and cannot predict or control the extent to which private companies and their auditors may elect to apply PCAOB standards.

The Board expects that the overall benefits of the proposed standard will justify any potential unintended negative effects.

#### **D. Alternatives Considered, Including Policy Choices**

The development of the new standard involved considering a number of alternative approaches to address the problems described above. This section explains (1) why standard setting is preferable to other policy-making alternatives, such as providing interpretive guidance or enhancing inspection or enforcement efforts; (2) other standard-setting approaches that were considered; and (3) key policy choices made by the Board in determining the details of the new standard.



1. *Alternatives to Standard Setting—Why Standard Setting is Preferable to Other Policy-Making Alternatives*

Among the Board's policy tools, an increased focus on inspections, enforcement of existing standards, or providing additional guidance are alternatives to revising the standards. The Board considered whether increasing inspections or enforcement efforts would be effective corrective mechanisms to address concerns with the audit of estimates, including fair value measurements, and concluded that inspections or enforcement actions alone would be less effective in achieving the Board's objectives than in combination with amending auditing standards.

Inspection and enforcement actions take place after audits have occurred (and potential investor harm in the case of insufficient audit performance). They reinforce future adherence to current auditing standards. Given the differences in the estimates standards discussed previously, devoting additional resources to inspections and enforcement activities without improving the relevant performance requirements for auditors would increase auditors' compliance with what the Board and many stakeholders view as standards that could be improved.

The PCAOB has issued seven Staff Audit Practice Alerts between 2007 and 2014 that address, to varying degrees, auditing accounting estimates.<sup>91</sup> The PCAOB has considered issuing additional practice alerts or other staff guidance specific to the use of third parties such as pricing services.<sup>92</sup> The Board believes guidance specific to the use of third parties would be limited to discussing the auditor's application of the existing standards and, given the differences in these standards discussed herein, guidance would be an ineffective tool and not a long-term solution.

---

<sup>91</sup> See, e.g., *Matters Related to Auditing Fair Value Measurements of Financial Instruments and the Use of Specialists*, Staff Audit Practice Alert No. 2 (Dec. 10, 2007); *Auditor Considerations Regarding Fair Value Measurements, Disclosures, and Other-Than-Temporary Impairments*, Staff Audit Practice Alert No. 4 (Apr. 21, 2009); *Assessing and Responding to Risk in the Current Economic Environment*, Staff Audit Practice Alert No. 9 (Dec. 6, 2011); *Maintaining and Applying Professional Skepticism in Audits*, Staff Audit Practice Alert No. 10 (Dec. 4, 2012); and *Matters Related to Auditing Revenue in an Audit of Financial Statements*, Staff Audit Practice Alert No. 12 (Sept. 9, 2014).

<sup>92</sup> Other standard setters have issued guidance relating to their existing standards. For example, the IAASB issued International Auditing Practice Note 1000, *Special Considerations in Auditing Financial Instruments* (Dec. 16, 2011), to provide guidance to auditors when auditing fair value measurements of financial instruments.

The Board's approach reflects its conclusion that, in these circumstances, standard setting is needed to fully achieve the benefits that could result from improvements in the auditing of estimates.

## *2. Other Standard-Setting Alternatives Considered*

The Board considered certain standard-setting alternatives, including (1) developing a separate standard on auditing the fair value of financial instruments or (2) enhancing the estimates standards through targeted amendments.

### *a. Developing a Separate Standard on Auditing the Fair Value of Financial Instruments*

The Board considered developing a separate standard that would specifically address auditing the fair value of financial instruments. The Board chose not to pursue this alternative because the addition of a separate standard could result in confusion and potential inconsistencies in the application of other standards. Additionally, the auditing issues pertinent to accounting estimates, including financial instruments, inherently overlap. Instead, the new standard includes a special topics appendix, which separately discusses certain matters relevant to financial instruments without repeating requirements that relate more broadly to all estimates, such as evaluating audit evidence.

### *b. Enhancing the Estimates Standards through Targeted Amendments*

The Board considered, but determined not to pursue, amending rather than replacing the three estimates standards. Retaining multiple standards with similar requirements would not eliminate redundancy and could result in confusion and potential inconsistencies in the application of the standards. The approach presented in the new standard is designed to be clearer and to result in more consistent application and more effective audits.

Commenters on the proposal were generally supportive of a single, uniform standard with a consistent set of requirements. One commenter said that they believed that audit quality would be promoted with a single framework. On the other hand, one commenter, citing the differences between fair value measurements and derivatives and hedging accounting, expressed concerns about combining multiple standards into one, but did not specify how the auditing approach could or should differ. Another commenter cautioned that a single standard would lead to a one-size-fits-all audit approach and not allow the tailoring of audit procedures. However, by aligning with the risk assessment standards and describing the basic requirements for testing and evaluating estimates, the new standard is designed to allow the auditors to tailor their procedures in order to respond to specific risks of material misstatement.

### 3. *Key Policy Choices*

Given a preference for a single, comprehensive standard applicable to all accounting estimates, including fair value measurements, in significant accounts and disclosures, the Board considered different approaches to addressing key policy issues.

#### a. Include a Reporting Requirement in the New Standard

Measurement uncertainty cannot be eliminated entirely through audit procedures. This raises a question of whether reporting of additional information about such procedures in the auditor's report is necessary.

However, the Board also considered whether requiring communication in the auditor's report relating to estimates would be duplicative of the new requirement to communicate critical audit matters ("CAMs"); any matters arising from the audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved especially challenging, subjective, or complex auditor judgments.<sup>93</sup> Under the new auditor's reporting standard, auditors will identify each CAM, describe the principal considerations that led them to determine it was a CAM, briefly describe how the CAM was addressed in the audit, and refer to the relevant accounts or disclosures in the financial statements. Because these reporting requirements will apply to financial statement estimates, including fair value measurements, if they meet the definition of CAM, AS 2501 (Revised) does not include any additional reporting requirements.

#### b. Require the Auditor to Develop an Independent Expectation

Given the variety of types of accounting estimates and the ways in which they are developed, the Board is retaining the three common approaches from the existing standards for auditing accounting estimates, including fair value measurements. In addition, the new standard continues to require the auditor to determine what substantive procedures are responsive to the assessed risks of material misstatement.

The Board considered, but determined not to pursue, requiring the auditor to develop an independent expectation for certain estimates, or when an estimate gives rise to a significant risk. Some members of the Board's advisory groups advocated for a requirement for the auditor to develop an independent expectation in addition to testing

---

<sup>93</sup> See *The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion and Related Amendments to PCAOB Standards*, PCAOB Release No. 2017-001 (June 1, 2017).



management's process. In addition, some SAG members suggested a requirement for the auditor to develop an independent expectation rather than test management's process. Finally, a few commenters on the proposal stated that auditors should develop independent estimates in addition to testing management's process. Although requiring an independent expectation could help reduce the risk of anchoring bias, it may not always be feasible. For some accounting estimates, the data and significant assumptions underlying the estimate often depend on internal company information. Also, developing a customized method or model for a particular company's estimate may not be practical, and a more general method or model could be less precise than the company's own model. In those situations, the auditor may not have a reasonable alternative to testing the company's process.

c. Require Additional Audit Procedures When an Accounting Estimate Gives Rise to Significant Risk

The Board considered including additional requirements when an accounting estimate gives rise to a significant risk, either more broadly or specifically when a wide range of measurement uncertainty exists. Alternatives considered included:

- Establishing that certain estimates are presumed to give rise to a significant risk (e.g., the allowance for loan losses).
- Establishing specific procedures that would depend on the risk determined to be significant (e.g., the use of a complex model determined to give rise to a significant risk would result in the auditor being required to perform specific procedures on that model).
- Including a requirement, similar to those in AU-C Section 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, And Related Disclosures* ("AU-C 540"),<sup>94</sup> for the auditor to evaluate how management has considered alternative assumptions or outcomes and why it has rejected them when significant measurement uncertainty exists.

Including additional requirements when an estimate gives rise to a significant risk would mandate the auditor to direct additional attention to that risk. AS 2301, however, already requires an auditor to perform substantive procedures, including tests of details that are specifically responsive to the assessed risks of material misstatement. This includes circumstances when the degree of complexity or judgment in the recognition or measurement of financial information related to the risk, especially those measurements

---

94

See paragraph 15a of AU-C 540.

involving a wide range of measurement uncertainty, give rise to a significant risk.<sup>95</sup> Further, with respect to critical accounting estimates,<sup>96</sup> the new standard and related amendments require the auditor to obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect on its financial condition or operating performance,<sup>97</sup> and to take that understanding into account when evaluating the reasonableness of the significant assumptions and potential for management bias.

Thus, requiring specific procedures for accounting estimates that give rise to significant risks would be duplicative in some ways of the existing requirement in AS 2301 as well as those set forth by the new standard, and could result in additional audit effort without significantly improving audit quality. Additionally, including prescriptive requirements for significant risks could result in the auditor performing only the required procedures when more effective procedures exist, or could provide disincentives for the auditor to deem a risk significant in order to avoid performing the additional procedures.

Accordingly, the Board is not adopting these alternatives in favor of retaining the existing requirement in AS 2301.

## **V. Special Considerations for Audits of Emerging Growth Companies**

Pursuant to Section 104 of the Jumpstart Our Business Startups ("JOBS") Act, rules adopted by the Board subsequent to April 5, 2012, generally do not apply to the audits of emerging growth companies ("EGCs") as defined in Section 3(a)(80) of the Securities and Exchange Act of 1934 ("Exchange Act") unless the SEC "determines that the application of such additional requirements is necessary or appropriate in the public interest, after considering the protection of investors, and whether the action will promote efficiency, competition, and capital formation."<sup>98</sup> As a result of the JOBS Act,

---

<sup>95</sup> See AS 2301.11 and AS 2110.71f.

<sup>96</sup> See paragraph .A3 of AS 1301, *Communications with Audit Committees*.

<sup>97</sup> See SEC, Financial Reporting Release No. 72, *Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations* (Dec. 19, 2003), 68 FR 75056 (Dec. 29, 2003), at Section V ("Critical Accounting Estimates") for management's responsibilities related to critical accounting estimates.

<sup>98</sup> See Pub. L. No. 112-106 (Apr. 5, 2012). See Section 103(a)(3)(C) of Sarbanes-Oxley, as added by Section 104 of the JOBS Act. Section 104 of the JOBS Act also provides that any rules of the Board requiring (1) mandatory audit firm rotation or (2) a

the rules and related amendments to PCAOB standards the Board adopts are generally subject to a separate determination by the SEC regarding their applicability to audits of EGCs.

The proposal sought comments on the applicability of the proposed requirements to the audits of EGCs. Commenters on the issue supported applying the proposed requirements to audits of EGCs, citing benefits to the users of EGC financial statements and the risk of confusion and inconsistency if different methodologies were required for EGC and non-EGC audits. One commenter suggested "phasing" the implementation of the requirements for audits of EGCs to reduce the compliance burden.

To inform consideration of the application of auditing standards to audits of EGCs, the staff has also published a white paper that provides general information about characteristics of EGCs.<sup>99</sup> As of the November 15, 2017 measurement date, the PCAOB staff identified 1,946 companies that had identified themselves as EGCs in at least one SEC filing since 2012 and had filed audited financial statements with the SEC in the 18 months preceding the measurement date.

The Board believes that accounting estimates are common in the financial statements of many EGCs.<sup>100</sup> The Board also notes that any new PCAOB standards and amendments to existing standards determined not to apply to the audits of EGCs would require auditors to address the differing requirements within their methodologies, which would create the potential for confusion.<sup>101</sup> This would run counter to the

---

supplement to the auditor's report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer (auditor discussion and analysis) shall not apply to an audit of an EGC. The new standard and related amendments do not fall within either of these two categories.

<sup>99</sup> See PCAOB white paper, *Characteristics of Emerging Growth Companies as of November 15, 2017* (Oct. 11, 2018) ("EGC White Paper"), available on the Board's website.

<sup>100</sup> The five SIC codes with the highest total assets as a percentage of the total assets for the EGC population are (i) real estate investment trusts; (ii) state commercial banks; (iii) national commercial banks; (iv) crude petroleum and natural gas; and (v) pharmaceutical preparations. *Id.* at 14–15. The financial statements of companies operating in these industries would likely have accounting estimates that include, for example, asset impairments and allowances for loan losses.

<sup>101</sup> Approximately 99% of EGCs were audited by accounting firms that also audit issuers that are not EGCs and 40% of EGC filers were audited by firms that are required to be inspected on an annual basis by the PCAOB because they issued audit

objective of improving audit practice by setting forth a more uniform, risk-based approach to auditing accounting estimates, including fair value measurements.

Overall, the discussion of benefits, costs, and unintended consequences in Section IV.C is generally applicable to audits of EGCs. Since EGCs tend to be smaller public companies, their accounting estimates may be less likely to involve complex processes,<sup>102</sup> although those estimates may constitute some of the largest accounts in EGCs' financial statements. Furthermore, EGCs may generally be more subject to information asymmetry problems associated with accounting estimates than other issuers. EGCs generally tend to have shorter financial reporting histories than other exchange-listed companies and as a result, there is less information available to investors regarding such companies relative to the broader population of public companies. Although the degree of information asymmetry between investors and company management for a particular issuer is unobservable, researchers have developed a number of proxies that are thought to be correlated with information asymmetry, including small issuer size, lower analyst coverage, larger insider holdings, and higher research and development costs.<sup>103</sup> To the extent that EGCs exhibit one or more of these properties, there may be a greater degree of information asymmetry for EGCs than for the broader population of companies, increasing the importance of the external audit to investors in enhancing the credibility of management disclosure.<sup>104</sup> The new standard and related amendments, which are intended to enhance audit quality, could increase the credibility of financial statement disclosures by EGCs.

---

reports for more than 100 issuers in the year preceding the measurement date. See EGC White Paper at 3.

<sup>102</sup> See, e.g., the note to AS 2201.09, which provides that many smaller companies have less complex operations and that less complex business processes and financial reporting systems are a factor indicating less complex operations.

<sup>103</sup> See, e.g., David Aboody and Baruch Lev, *Information Asymmetry, R&D, and Insider Gains*, 55 *Journal of Finance* 2747 (2000); Michael J. Brennan and Avanidhar Subrahmanyam, *Investment Analysis and Price Formation in Securities Markets*, 38 *Journal of Financial Economics* 361 (1995); Varadarajan V. Chari, Ravi Jagannathan, and Aharon R. Ofer, *Seasonalities in Security Returns: The Case of Earnings Announcements*, 21 *Journal of Financial Economics* 101 (1988); and Raymond Chiang, and P. C. Venkatesh, *Insider Holdings and Perceptions of Information Asymmetry: A Note*, 43 *Journal of Finance* 1041 (1988).

<sup>104</sup> See, e.g., Molly Mercer, *How Do Investors Assess the Credibility of Management Disclosures?*, 18 *Accounting Horizons* 185, 189 (2004) ("[Academic studies] provide archival evidence that external assurance from auditors increases disclosure credibility...These archival studies suggest that bankers believe audits enhance the credibility of financial statements...").

When confronted with information asymmetry, investors may require a larger risk premium, and thus increase the cost of capital to companies.<sup>105</sup> Reducing information asymmetry, therefore, can lower the cost of capital to companies, including EGCs, by decreasing the risk premium required by investors.<sup>106</sup> Therefore, investors in EGCs may benefit as much as, if not more than, investors in other types of issuers as a result of the new standard and related amendments.

PCAOB staff gathered data from 2012–2016 reported inspection findings for issuer audits that were identified to be EGCs in the relevant inspection year.<sup>107</sup> The chart below shows the number of EGC audits with deficiencies related to the accounting estimates standard and fair value standard<sup>108</sup> based on the 2012–2016 reported inspection findings.<sup>109</sup> The data help demonstrate the high frequency of deficiencies related to the existing estimates and fair value standards in the audits of EGCs, raising questions about whether professional skepticism is being appropriately applied and about overall audit quality in this area. The EGC audits that had deficiencies related to the existing estimates and fair value standards as a proportion of total EGC audits that had deficiencies (including deficiencies in internal control over financial reporting) have remained relatively high (45%–60%) for the 2012–2016 period.

---

<sup>105</sup> See, e.g., Lambert et al., *Information Asymmetry, Information Precision, and the Cost of Capital* 21.

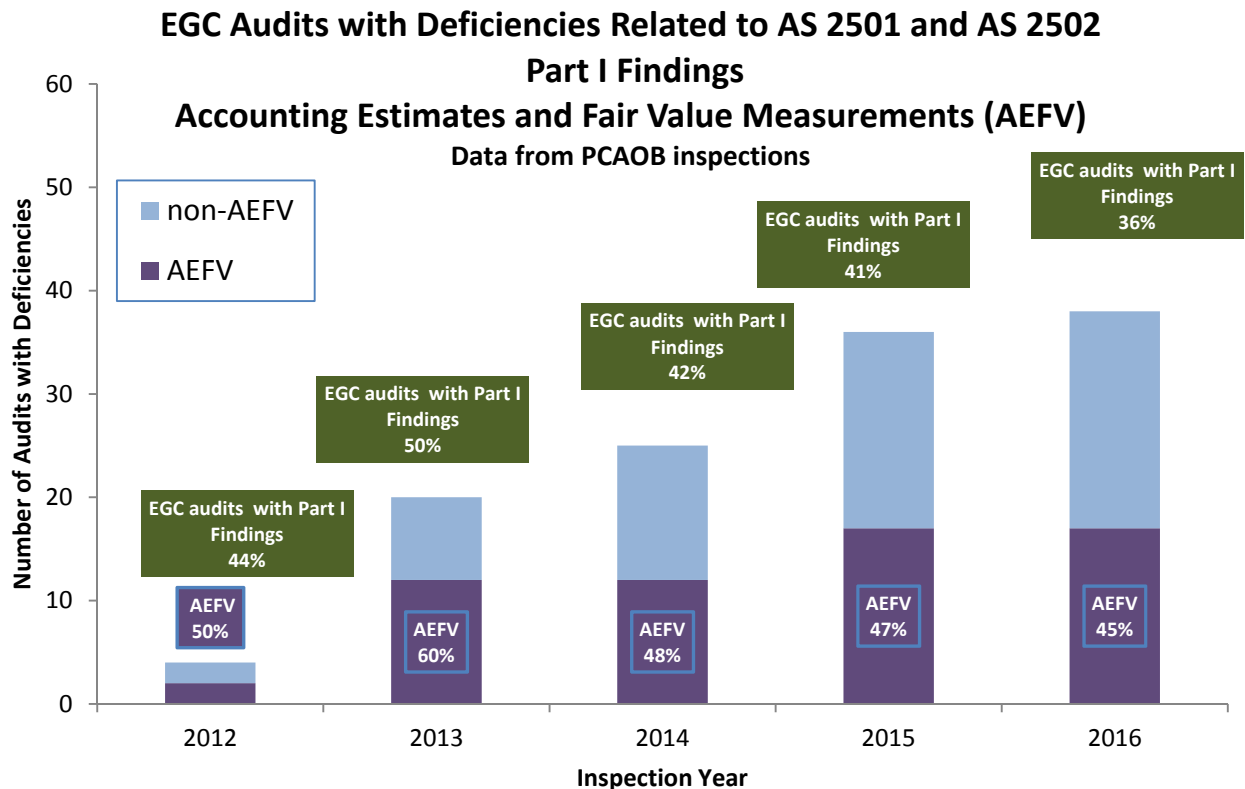
<sup>106</sup> For a discussion of how increasing reliable public information about a company can reduce risk premium, see Easley and O'Hara, *Information and the Cost of Capital* 1553.

<sup>107</sup> See EGC White Paper for the methodology used to identify EGCs.

<sup>108</sup> Deficiencies related to the derivatives standard were infrequent over the inspection period reviewed, and therefore considered insignificant for purposes of this analysis.

<sup>109</sup> The chart identifies the audits of EGCs with deficiencies reported in the public portion of inspection reports. It shows the relative frequency of EGC audits with deficiencies citing the existing accounting estimates standard or the existing fair value standard compared to the total EGC audits with deficiencies for that year. It also shows the frequency of inspected EGCs audits that had a deficiency. For example, in inspection year 2013, 50% of the EGC audits that were inspected had a deficiency and 60% of the audits with deficiencies included at least one deficiency citing the accounting estimates standard or the fair value standard (total 2016 reported inspection findings are based on preliminary results).





The Board is providing this analysis to assist the SEC in its consideration of whether it is "necessary or appropriate in the public interest, after considering the protection of investors and whether the action will promote efficiency, competition, and capital formation," to apply the new standard and related amendments to audits of EGCs.

For the reasons explained above, the Board believes that the new standard and related amendments are in the public interest and, after considering the protection of investors and the promotion of efficiency, competition, and capital formation, recommends that the new standard and related amendments apply to audits of EGCs. Accordingly, the Board recommends that the Commission determine that it is necessary or appropriate in the public interest, after considering the protection of investors and whether the action will promote efficiency, competition, and capital formation, to apply the new standard and related amendments to audits of EGCs. The Board stands ready to assist the Commission in considering any comments the Commission receives on these matters during the Commission's public comment process.

**VI. Applicability to Audits of Brokers and Dealers**

The proposal indicated that the proposed standard and amendments would apply to audits of brokers and dealers, as defined in Sections 110(3)–(4) of Sarbanes-Oxley. The Board solicited comment on any factors specifically related to audits of brokers and dealers that may affect the application of the proposed amendments to those audits. Commenters that addressed the issue agreed that the proposal should apply to these audits, citing benefits to users of financial statements of broker and dealers and the risk of confusion and inconsistency if different methodologies were required under PCAOB standards for audits of different types of entities.

After considering comments, the Board determined that the new standard and related amendments, if approved by the SEC, will be applicable to all audits performed pursuant to PCAOB standards, including audits of brokers and dealers.

The information asymmetry between the management and the customers of brokers and dealers about the brokers' and dealers' financial condition may be significant and of particular interest to customers, as the brokers or dealers may have custody of customers assets, which could become inaccessible to the customers in the event of an insolvency. In addition, unlike the owners of brokers and dealers, who themselves may be managers and thus may be subject to minimal or no information asymmetry, customers of brokers and dealers may, in some instances, be large in number and may not be expert in the management or operation of brokers and dealers. Such information asymmetry between the management and the customers of brokers and dealers increases the role of auditing in enhancing the reliability of financial information, especially given that the use of estimates, including fair value measurements, is prevalent among brokers and dealers. The provision to regulatory agencies of reliable and accurate accounting estimates on brokers' and dealers' financial statements may enable these agencies to more effectively monitor these important market participants. Improved audits may help prevent accounting fraud that affects brokers' and dealers' customers and that may be perpetrated, for example, through manipulated valuations of securities. Therefore, the new standard should benefit customers and regulatory authorities of brokers and dealers by increasing confidence that brokers and dealers are able to meet their obligations to their customers and are in compliance with regulatory requirements.

Accordingly, the discussion in Section IV of the need for the new standard and related amendments, as well as the costs, benefits, alternatives considered, and potential unintended consequences to auditors and the companies they audit, also applies to audits of brokers and dealers. In addition, with respect to the impact of the new standard on customers of brokers and dealers, the expected improvements in audit quality described in Section IV.C.1 would benefit such customers, along with investors, capital markets and auditors, while the final requirements are not expected to result in any direct costs or unintended consequences to customers of brokers and dealers.

**VII. Effective Date**

The Board determined that AS 2501 (Revised) and related amendments will take effect, subject to approval by the SEC, for audits of financial statements for fiscal years ending on or after December 15, 2020.

The Board sought comment on the amount of time auditors would need before the proposed standard and amendments would become effective, if adopted by the Board and approved by the SEC. A number of commenters recommended that the Board provide an effective date two years after SEC approval, which they asserted would give firms the necessary time to update firm methodologies, develop and implement training, and ensure effective quality control process to support implementation. Some commenters supported an earlier effective date, with one commenter indicating that the proposed standard should be effective contemporaneously with the implementation of the new accounting standard on credit losses. One commenter also suggested a phased in approach for EGCs. Two commenters noted that the proposal should be effective at the same time as any amendments related to the auditor's use of the work of specialists.

While recognizing other implementation efforts, the effective date determined by the Board is designed to provide auditors with a reasonable period of time to implement the new standard and related amendments, without unduly delaying the intended benefits resulting from these improvements to PCAOB standards. The effective date is also aligned with the effective date of the amendments being adopted in the Specialists Release.

\* \* \*

On the 20<sup>th</sup> day of December, in the year 2018, the foregoing was, in accordance with the bylaws of the Public Company Accounting Oversight Board,

ADOPTED BY THE BOARD.

/s/ Phoebe W. Brown

Phoebe W. Brown

Secretary

December 20, 2018



**APPENDIX 1—AS 2501 (Revised)**

[AS 2501 is retitled and amended in its entirety with the following:]

**Auditing Standard AS 2501: Auditing Accounting Estimates, Including Fair Value Measurements**

***Introduction***

.01 This standard establishes requirements for auditing accounting estimates (including fair value measurements) in significant accounts and disclosures in financial statements.

.02 An accounting estimate is a measurement or recognition in the financial statements of (or a decision to not recognize) an account, disclosure, transaction, or event that generally involves subjective assumptions and measurement uncertainty. For purposes of this standard, a fair value measurement is a form of accounting estimate.

***Objective***

.03 The objective of the auditor is to obtain sufficient appropriate evidence to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in the financial statements.

***Identifying and Assessing Risks of Material Misstatement***

.04 AS 2110, *Identifying and Assessing Risks of Material Misstatement*, establishes requirements regarding the process of identifying and assessing risks of material misstatement. This process includes (1) identifying accounting estimates in significant accounts and disclosures; (2) understanding the process by which accounting estimates are developed;<sup>1</sup> and (3) identifying and assessing the risks of material misstatement related to accounting estimates, which includes determining whether the components of estimates in significant accounts and disclosures are subject to significantly differing risks,<sup>2</sup> and which accounting estimates are associated with significant risks.

Note: AS 2110.60 and .60A set forth risk factors relevant to the identification of significant accounts and disclosures involving accounting estimates. Paragraph .A1 in Appendix A of this standard sets forth matters

---

<sup>1</sup> See AS 2110.28.

<sup>2</sup> See AS 2110.63.

that the auditor should take into account for identifying and assessing risks of material misstatement related to the fair value of financial instruments.

***Responding to the Risks of Material Misstatement***

.05 AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*, requires the auditor to design and implement appropriate responses that address risks of material misstatement. This includes applying substantive procedures to accounting estimates in significant accounts and disclosures.

Note: Responding to the risks of material misstatement involves evaluating whether the accounting estimates are in conformity with the applicable financial reporting framework<sup>3</sup> and reasonable in the circumstances, as well as evaluating potential management bias in accounting estimates and its effect on the financial statements.<sup>4</sup>

Note: If different components of an accounting estimate in a significant account or disclosure are subject to significantly differing risks of material misstatement, the auditor's responses should include procedures that are responsive to the differing risks of material misstatement.

Note: The auditor's responses to the assessed risks of material misstatement, particularly fraud risks, should involve the application of professional skepticism in gathering and evaluating audit evidence.<sup>5</sup> Audit evidence consists of both information that supports and corroborates management's assertions regarding the financial statements and information that contradicts such assertions.<sup>6</sup>

.06 AS 2301 provides that as the assessed risk of material misstatement increases, the evidence from substantive procedures that the auditor should obtain also increases.

---

<sup>3</sup> See AS 2301.36.

<sup>4</sup> See also paragraphs .24–.27 of AS 2810, *Evaluating Audit Results*, which describe the auditor's responsibilities for evaluating the qualitative aspects of the company's accounting practices, including evaluating potential management bias in accounting estimates and its effect on the financial statements.

<sup>5</sup> See AS 2301.07.

<sup>6</sup> See paragraph .02 of AS 1105, *Audit Evidence*.

The evidence provided by substantive procedures depends upon the mix of the nature, timing, and extent of those procedures.<sup>7</sup>

.07 In performing substantive procedures<sup>8</sup> to respond to the identified and assessed risks of material misstatement associated with accounting estimates, the auditor should test an accounting estimate using one or a combination of the following approaches:

- a. Test the company's process used to develop the accounting estimate (see paragraphs .09–.20 of this standard);
- b. Develop an independent expectation for comparison to the company's estimate (see paragraphs .21–.26 of this standard); and
- c. Evaluate audit evidence from events or transactions occurring after the measurement date related to the accounting estimate for comparison to the company's estimate (see paragraphs .27–.29 of this standard).

Note: The auditor may use any of the three approaches (individually or in combination). However, the auditor's decisions about the approach he or she takes to auditing an estimate should necessarily be informed by the auditor's understanding of the process the company used to develop the estimate and, if relevant controls are tested, the results of those tests.

### **Use of an Auditor's Specialist**

.08 If the auditor engages a specialist to assist in obtaining or evaluating audit evidence, the auditor should also comply with the requirements of AS 1210, *Using the Work of an Auditor-Engaged Specialist*. If the auditor uses a specialist employed by the auditor to assist in obtaining or evaluating audit evidence, the auditor should also comply with the requirements set forth in Appendix C to AS 1201, *Supervision of the Audit Engagement*.<sup>9</sup>

---

<sup>7</sup> See AS 2301.37.

<sup>8</sup> AS 2301.36 states that the auditor should perform substantive procedures for each relevant assertion of each significant account and disclosure, regardless of the assessed level of control risk.

<sup>9</sup> See paragraph .16 of AS 2101, *Audit Planning*, which describes the auditor's responsibility to determine whether specialized skill or knowledge is needed to perform appropriate risk assessments, plan or perform audit procedures, or evaluate audit results.

### ***Testing the Company's Process Used to Develop the Accounting Estimate***

.09 Testing the company's process involves performing procedures to test and evaluate the methods, data, and significant assumptions used in developing the estimate, in order to form a conclusion about whether the estimate is properly accounted for and disclosed in the financial statements.

### **Evaluating the Company's Methods**

.10 The auditor should evaluate whether the methods used by the company to develop the accounting estimates are:

- a. In conformity with the requirements of the applicable financial reporting framework; and
- b. Appropriate for the nature of the related account or disclosure, taking into account the auditor's understanding of the company and its environment.<sup>10</sup>

Note: Evaluating whether the methods are in conformity with the requirements of the applicable financial reporting framework includes evaluating whether the data is appropriately used and significant assumptions are appropriately applied under the applicable financial reporting framework.

.11 If the company has changed the method for determining the accounting estimate, the auditor should determine the reasons for such change and evaluate the appropriateness of the change. This includes evaluating changes in methods that represent changes in accounting principles in accordance with AS 2820, *Evaluating Consistency of Financial Statements*.<sup>11</sup> In circumstances where the company has determined that different methods result in significantly different estimates, the auditor

---

<sup>10</sup> AS 2110.12–.13 describes the auditor's responsibilities for obtaining an understanding of the company's selection and application of accounting principles, as part of understanding the company and its environment. In addition, AS 2301.05d provides that the auditor should evaluate whether the company's selection and application of significant accounting principles, particularly those related to subjective measurements and complex transactions, are indicative of bias that could lead to material misstatement of the financial statements.

<sup>11</sup> See also AS 2820.06, which describes the auditor's responsibility for evaluating a change in accounting estimate effected by a change in accounting principle.

should obtain an understanding of the reasons for the method selected by the company and evaluate the appropriateness of the selection.<sup>12</sup>

### **Testing Data Used**

.12 AS 1105 requires the auditor, when using information produced by the company as audit evidence, to evaluate whether the information is sufficient and appropriate for purposes of the audit by performing procedures to (1) test the accuracy and completeness of the information or test the controls over the accuracy and completeness of that information, and (2) evaluate whether the information is sufficiently precise and detailed for purposes of the audit.<sup>13</sup>

.13 If the company uses data from an external source, the auditor should evaluate the relevance and reliability of the data in accordance with AS 1105.<sup>14</sup>

.14 The auditor should also evaluate whether the data is appropriately used by the company in developing the accounting estimate by evaluating whether:

- a. The data is relevant to the measurement objective for the accounting estimate;
- b. The data is internally consistent with its use by the company in other significant accounts and disclosures; and
- c. The source of the company's data has changed from the prior year and, if so, whether the change is appropriate.

### **Identification of Significant Assumptions**

.15 The auditor should identify which of the assumptions used by the company are significant assumptions to the accounting estimate, that is, the assumptions that are important to the recognition or measurement of the accounting estimate in the financial statements. In identifying the significant assumptions, the auditor should take into

---

<sup>12</sup> See also AS 2301.05d.

<sup>13</sup> See AS 1105.10.

<sup>14</sup> See AS 1105.07–.08. Appendix B of AS 1105 describes the auditor's responsibilities for obtaining sufficient appropriate evidence in situations in which the valuation of an investment is based on the investee's financial results.

account the nature of the accounting estimate, including related risk factors,<sup>15</sup> the requirements of the applicable financial reporting framework, and the auditor's understanding of the company's process for developing the estimate. Examples of assumptions that ordinarily would be considered significant assumptions include those that:

- a. Are sensitive to variation, such that minor changes in the assumption can cause significant changes in the estimate;
- b. Are susceptible to manipulation or bias;
- c. Involve unobservable data or company adjustments of observable data; or
- d. Depend on the company's intent and ability to carry out specific courses of action.<sup>16</sup>

### **Evaluating the Reasonableness of Significant Assumptions**

.16 The auditor should evaluate the reasonableness of the significant assumptions used by the company to develop the estimate, both individually and in combination. This includes evaluating whether:

- a. The company has a reasonable basis for the significant assumptions used and, when applicable, for its selection of assumptions from a range of potential assumptions; and
- b. The significant assumptions are consistent with the following, when applicable:
  - (1) Relevant industry, regulatory, and other external factors, including economic conditions;
  - (2) The company's objectives, strategies, and related business risks;<sup>17</sup>

---

<sup>15</sup> For this purpose, related risk factors are those risk factors in AS 2110.60–.60A that are relevant to the accounting estimate.

<sup>16</sup> See paragraph .17 of this standard.

<sup>17</sup> The understanding of the company and its environment obtained in performing the procedures required by AS 2110.07–.09 can provide information relevant to evaluating the reasonableness of significant assumptions pursuant to paragraphs .16b(1) and .16b(2) of this standard.



- (3) Existing market information;
- (4) Historical or recent experience, taking into account changes in conditions and events affecting the company; and
- (5) Other significant assumptions used by the company in other estimates tested.

Note: If the auditor evaluates the reasonableness of a significant assumption by developing an expectation of that assumption, the auditor should have a reasonable basis for that expectation.

Note: Paragraph .A10 in Appendix A of this standard sets forth additional requirements related to evaluating the reasonableness of unobservable inputs used in the valuation of financial instruments.

.17 When a significant assumption is based on the company's intent and ability to carry out a particular course of action, the auditor should take into account the following factors in evaluating the reasonableness of the assumption:

- a. The company's past history of carrying out its stated intentions;
- b. The company's written plans or other relevant documentation, such as budgets or minutes;
- c. The company's stated reasons for choosing a particular course of action; and
- d. The company's ability to carry out a particular course of action, which includes consideration of whether:
  - (1) The company has the financial resources and other means to carry out the action;
  - (2) Legal, regulatory, or contractual restrictions could affect the company's ability to carry out the action; and
  - (3) The company's plans require the action of third parties and, if so, whether those parties are committed to those actions.

.18 For critical accounting estimates,<sup>18</sup> the auditor should obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change,

---

<sup>18</sup> See paragraph .A3 of AS 1301, *Communications with Audit Committees*.

based on other reasonably likely outcomes that would have a material effect on its financial condition or operating performance.<sup>19</sup> The auditor should take that understanding into account when evaluating the reasonableness of the significant assumptions and potential management bias.<sup>20</sup>

### **Company's Use of a Specialist or Third-Party Pricing Information**

.19 *Using the Work of a Company's Specialist.* When a specialist employed or engaged by the company assists the company in developing an accounting estimate, the auditor should look to the requirements in Appendix A of AS 1105 with respect to using the work of a company's specialist as audit evidence to support a conclusion regarding a relevant assertion of a significant account or disclosure.

.20 *Using Pricing Information from a Third Party for Valuation of Financial Instruments.* When the auditor is auditing the fair values of financial instruments, the company's use of pricing information from a third party affects the necessary procedures for testing the company's process. When third-party pricing information used by the company is significant to the valuation of financial instruments, the auditor should evaluate whether the company has used that information appropriately and whether it provides sufficient appropriate evidence. Paragraphs .A2–.A9 in Appendix A of this standard set forth procedures for determining whether third-party pricing information provides sufficient appropriate evidence.<sup>21</sup>

### **Developing an Independent Expectation of the Estimate**

.21 Developing an independent expectation involves the auditor using some or all of his or her own methods, data, and assumptions to develop an expectation of the estimate for comparison to the company's estimate. The auditor's responsibilities with

---

<sup>19</sup> See U.S. Securities and Exchange Commission, Financial Reporting Release No. 72, *Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations* (Dec. 19, 2003), 68 FR 75056 (Dec. 29, 2003), at Section V ("Critical Accounting Estimates") for management's responsibilities related to critical accounting estimates.

<sup>20</sup> See AS 2810.27.

<sup>21</sup> If the third party is a service organization that is part of the company's information system over financial reporting, AS 2601, *Consideration of an Entity's Use of a Service Organization*, describes the auditor's responsibilities for obtaining an understanding of controls at the service organization.



respect to developing an independent expectation depend on the source of the methods, data, and assumptions used, as discussed below.

Note: In developing an independent expectation, the auditor should take into account the requirements of the applicable financial reporting framework and the auditor's understanding of the company's process, including the significant assumptions used by the company, so that the auditor's expectation considers the factors relevant to the estimate.

### **Independent Assumptions and Methods of the Auditor**

.22 When the auditor independently derives assumptions or uses his or her own method in developing an independent expectation, the auditor should have a reasonable basis for the assumptions and method used.

### **Data and Assumptions Obtained from a Third Party**

.23 If the auditor uses data or assumptions obtained from a third party in developing an independent expectation, the auditor should evaluate the relevance and reliability of the data and assumptions obtained in accordance with AS 1105.

Note: If the auditor develops an independent expectation of the fair value of financial instruments using pricing information from a third party, the auditor should evaluate whether the pricing information provides sufficient appropriate evidence. Paragraphs .A2–.A9 in Appendix A of this standard set forth procedures for evaluating whether third-party pricing information provides sufficient appropriate evidence.

### **Use of Company Data, Assumptions, or Methods**

.24 If the auditor uses data produced by the company, significant assumptions used by the company, or the company's methods in developing an independent expectation, the auditor should:

- a. Test such data in accordance with paragraphs .12–.14 of this standard;
- b. Evaluate the reasonableness of such significant assumptions in accordance with paragraphs .16–.18 of this standard; and
- c. Evaluate such company methods in accordance with paragraphs .10–.11 of this standard.

Note: If the company's data, assumptions, or methods were those of a company's specialist, the auditor should look to the requirements of Appendix A of AS 1105 with respect to using the work of the specialist as audit evidence.

## **Developing an Independent Expectation as a Range**

.25 If the auditor's independent expectation consists of a range rather than a point estimate, the auditor should determine that the range encompasses only reasonable outcomes, in conformity with the applicable financial reporting framework, and is supported by sufficient appropriate evidence.

## **Comparing the Auditor's Independent Expectation to the Company's Accounting Estimate**

.26 The auditor should compare the auditor's independent expectation to the company's estimate and should evaluate the differences in accordance with AS 2810.13.<sup>22</sup>

## **Evaluating Audit Evidence from Events or Transactions Occurring After the Measurement Date**

.27 Events and transactions that occur after the measurement date can provide relevant evidence to the extent they reflect conditions at the measurement date.<sup>23</sup>

.28 When the auditor obtains audit evidence from events or transactions that occur after the measurement date, the auditor should evaluate whether the audit evidence is sufficient, reliable, and relevant to the company's accounting estimate and whether the evidence supports or contradicts the company's estimate.

.29 In evaluating whether an event or transaction provides evidence relevant<sup>24</sup> to the accounting estimate at the measurement date, the auditor should take into account

---

<sup>22</sup> AS 2810.13 states, among other things, that if a range of reasonable estimates is supported by sufficient appropriate audit evidence and the recorded estimate is outside of the range of reasonable estimates, the auditor should treat the difference between the recorded accounting estimate and the closest reasonable estimate as a misstatement. See also paragraph .30 of this standard.

<sup>23</sup> Evaluating audit evidence from events or transactions occurring after the measurement date, as contemplated in this standard, is a substantive test that differs from the other auditing procedures performed under paragraph .12 of AS 2801, *Subsequent Events*. See also paragraph .11 of AS 1015, *Due Professional Care in the Performance of Work*, which provides that the auditor's evaluation of accounting estimates is to be based on information that could reasonably be expected to be available through the date of the auditor's report.

<sup>24</sup> AS 1105.07 provides factors regarding the relevance of audit evidence.

changes in the company's circumstances and other relevant conditions between the event or transaction date and the measurement date.

Note: As the length of time from the measurement date increases, the likelihood that events and conditions have changed during the intervening period also increases.

### ***Evaluating Audit Results***

.30 AS 2810 requires the auditor to evaluate the results of audit procedures performed on accounting estimates. This includes:

- a. Evaluating identified misstatements;<sup>25</sup>
- b. Evaluating the qualitative aspects of the company's accounting practices, including potential bias in management's judgments about the amounts and disclosures in the financial statements;<sup>26</sup>
- c. Evaluating potential bias in accounting estimates;<sup>27</sup> and
- d. Evaluating the presentation of the financial statements, including the disclosures and whether the financial statements contain the information essential for a fair presentation of the financial statements in conformity with the applicable financial reporting framework.<sup>28</sup>

.31 Evaluating potential bias in accounting estimates includes evaluating bias in estimates individually and in aggregate. It also includes evaluating whether bias results from the cumulative effect of changes in estimates.<sup>29</sup>

---

<sup>25</sup> See AS 2810.10–.23, which discuss accumulating and evaluating identified misstatements.

<sup>26</sup> See AS 2810.24–.26.

<sup>27</sup> See AS 2810.27.

<sup>28</sup> See AS 2810.31.

<sup>29</sup> See AS 2810.27.

## **APPENDIX A—Special Topics**

### ***Identifying and Assessing Risks of Material Misstatement Related to the Fair Value of Financial Instruments***

.A1 To identify and assess risks of material misstatement related to the fair value of financial instruments, the auditor should obtain an understanding of the nature of the financial instruments being valued. Matters that the auditor should take into account include:

- a. The terms and characteristics of the financial instruments;
- b. The extent to which the fair value of the type of financial instruments is based on inputs that are observable directly or indirectly; and
- c. Other factors affecting the valuation of the financial instruments, such as credit or counterparty risk, market risk, and liquidity risk.

Note: In general, fair values of financial instruments based on trades of identical financial instruments in an active market have a lower risk of material misstatement than fair values derived from observable trades of similar financial instruments or unobservable inputs.

### ***Use of Pricing Information from Third Parties as Audit Evidence***

.A2 When the auditor uses pricing information from a third party to develop an independent expectation or evaluates pricing information provided by a third party used by the company,<sup>1</sup> the auditor should perform procedures to determine whether the

---

<sup>1</sup> If the third party is a service organization that is part of the company's information system over financial reporting, AS 2601, *Consideration of an Entity's Use of a Service Organization*, describes the auditor's responsibilities for obtaining an understanding of controls at the service organization.

pricing information provides sufficient appropriate<sup>2</sup> evidence to respond to the risks of material misstatement.<sup>3</sup>

.A3 The following paragraphs address pricing information from:

- a. Organizations that routinely provide uniform pricing information to users, generally on a subscription basis ("pricing services");<sup>4</sup> and
- b. Brokers or dealers.

### **Using Pricing Information from Pricing Services**

.A4 The reliability of audit evidence depends on the nature and source of the evidence and the circumstances under which it is obtained.<sup>5</sup> The following factors affect the reliability of pricing information provided by a pricing service:

- a. The experience and expertise of the pricing service relative to the types of financial instruments being valued, including whether the types of financial instruments being valued are routinely priced by the pricing service;
- b. Whether the methodology used by the pricing service in determining fair value of the types of financial instruments being valued is in conformity with the applicable financial reporting framework; and

---

<sup>2</sup> See paragraph .06 of AS 1105, *Audit Evidence*, which states that appropriateness is the measure of the quality of audit evidence, i.e., its relevance and reliability. To be appropriate, audit evidence must be both relevant and reliable in providing support for the conclusions on which the auditor's opinion is based.

<sup>3</sup> Under paragraph .09 of AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*, the auditor should design audit procedures to obtain more persuasive audit evidence the higher the auditor's assessment of risk.

<sup>4</sup> The requirements in Appendix A of AS 1105 for an auditor using the work of a company's specialist or AS 1210, *Using the Work of an Auditor-Engaged Specialist* for an auditor using the work of an auditor-engaged specialist apply when a pricing service is engaged to individually develop a price for a specific financial instrument not routinely priced for its subscribers.

<sup>5</sup> See AS 1105.08.

- c. Whether the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service.

Note: The auditor should take into account the results of the procedures performed under AS 2410, *Related Parties*, in determining whether the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service.

Note: The existence of a process by which subscribers can challenge a pricing service's pricing information does not, by itself, mean that company management has the ability to directly or indirectly control or significantly influence that pricing service.

Note: If the auditor performs procedures to assess the reliability of pricing information provided by a pricing service at an interim date, the auditor should evaluate whether the pricing service has changed its valuation process relative to the types of financial instruments being valued, and, if so, the effect of such changes on the pricing information provided at period end.

.A5 The relevance of audit evidence refers to its relationship to the assertion or to the objective of the control being tested.<sup>6</sup> The following factors affect the relevance of pricing information provided by a pricing service:

- a. Whether the fair values are based on quoted prices in active markets for identical financial instruments;
- b. When the fair values are based on transactions of similar financial instruments, how those transactions are identified and considered comparable to the financial instruments being valued; and
- c. When no recent transactions have occurred for either the financial instrument being valued or similar financial instruments, or the price was developed using a quote from a broker or dealer, how the fair value was developed, including whether the inputs used represent the assumptions that market participants would use when pricing the financial instruments.

---

<sup>6</sup> See AS 1105.07.

.A6 When the fair values are based on transactions of similar financial instruments, the auditor should perform additional audit procedures to evaluate the process used by the pricing service, including evaluating how transactions are identified, considered comparable, and used to value the types of financial instruments selected for testing.

Note: When a pricing service uses the same process to price a group of financial instruments, the audit procedures to evaluate the process can be performed for those financial instruments as a group, rather than for each instrument individually, if the financial instruments are similar in nature (taking into account the matters in paragraph .A1).<sup>7</sup>

.A7 When no recent transactions have occurred for either the financial instrument being valued or similar financial instruments, the auditor should perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of observable and unobservable inputs used by the pricing service.

### **Using Pricing Information from Multiple Pricing Services**

.A8 When pricing information is obtained from multiple pricing services, less information is needed about the particular methods and inputs used by the individual pricing services when the following conditions are met:

- a. There are recent trades of the financial instrument or of financial instruments substantially similar to the financial instruments being valued;
- b. The type of financial instrument being valued is routinely priced by several pricing services;
- c. Prices obtained are reasonably consistent across pricing services, taking into account the nature and characteristics of the financial instruments being valued, and market conditions; and
- d. The pricing information for the type of financial instrument is generally based on inputs that are observable.

Note: When the above conditions are not met, the auditor should perform additional audit procedures, including evaluating the appropriateness of

---

<sup>7</sup> Other procedures required by this Appendix may also be performed at a group level, provided that the conditions set forth in the note to .A6 are met: the financial instruments that compose the group are similar in nature, taking into account the matters in paragraph .A1, and are priced by the pricing service using the same process.



the valuation method and the reasonableness of observable and unobservable inputs for a representative price for the type of financial instrument being valued.

### **Using Pricing Information from a Broker or Dealer**

.A9 When a fair value measurement is based on a quote from a broker or dealer ("broker quote"), the relevance and reliability of the evidence provided by the broker quote depend on whether:

- a. The broker or dealer has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the broker or dealer;
- b. The broker or dealer making the quote is a market maker that transacts in the same type of financial instrument;
- c. The broker quote reflects market conditions as of the financial statement date;
- d. The broker quote is binding on the broker or dealer; and
- e. There are any restrictions, limitations, or disclaimers in the broker quote and, if so, their nature.<sup>8</sup>

Note: Broker quotes generally provide more relevant and reliable evidence when they are timely, binding quotes, without any restrictions, limitations, or disclaimers, from unaffiliated market makers transacting in the same type of financial instrument. If the broker quote does not provide sufficient appropriate evidence, the auditor should perform procedures to obtain relevant and reliable pricing information from another pricing source pursuant to the requirements of this appendix.

Note: The auditor should take into account the results of the procedures performed under AS 2410 in determining whether the broker or dealer has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the broker or dealer.

---

<sup>8</sup> See AS 1105.08.



## **Unobservable Inputs**

.A10 When the valuation of a financial instrument includes unobservable inputs that are significant to the valuation, the auditor should obtain an understanding of how unobservable inputs were determined and evaluate the reasonableness of the unobservable inputs by taking into account the following:

- a. Whether modifications made to observable information generally reflect the assumptions that market participants would use when pricing the financial instrument, including assumptions about risk; and
- b. How the company determined its fair value measurement, including whether it appropriately considered the information available.

**APPENDIX 2—Amendments to PCAOB Auditing Standards**

This appendix sets forth the amendments to certain PCAOB auditing standards and auditing interpretations. This table is a reference tool for these amendments.

<b>PCAOB Standard or Auditing Interpretation</b>	<b>Title</b>	<b>Paragraphs Amended</b>
AS 1015	Due Professional Care in the Performance of Work	.11
AS 1105	Audit Evidence	.08, Appendix B (added)
AS 1205	Part of the Audit Performed by Other Independent Auditors	.14
AS 1301	Communications with Audit Committees	.12, .13, Appendix B
AS 2110	Identifying and Assessing Risks of Material Misstatement	.28, .52, .60A (added)
AS 2301	The Auditor's Responses to the Risks of Material Misstatement	.17, .36, .38, .40
AS 2401	Consideration of Fraud in a Financial Statement Audit	.54, .63, .64
AS 2502	Auditing Fair Value Measurements and Disclosures	Rescinded
AS 2503	Auditing Derivative Instruments, Hedging Activities, and Investments in Securities	Rescinded
AS 2805	Management Representations	.06
AS 3101	The Auditor's Report on an	.18

PCAOB Standard or Auditing Interpretation	Title	Paragraphs Amended
	Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion	
AS 4105	Reviews of Interim Financial Information	B1
AI 16	Auditing Accounting Estimates: Auditing Interpretations of AS 2501	Rescinded

I. AS 1015 is amended by revising paragraph .11 to read as follows:

.11 The independent auditor's objective is to obtain sufficient appropriate evidential matter to provide him or her with a reasonable basis for forming an opinion. The nature of most evidence derives, in part, from the concept of selective testing of the data being audited, which involves judgment regarding both the areas to be tested and the nature, timing, and extent of the tests to be performed. In addition, judgment is required in interpreting the results of audit testing and evaluating audit evidence. Even with good faith and integrity, mistakes and errors in judgment can be made. Furthermore, many accounting presentations contain accounting estimates, the measurement of which is inherently uncertain and depends on the outcome of future events. The auditor exercises professional judgment in evaluating the reasonableness of accounting estimates in significant accounts and disclosures based on information that could reasonably be expected to be available through the date of the auditor's report.<sup>5</sup> As a result of these factors, in the great majority of cases, the auditor has to rely on evidence that is persuasive rather than convincing.

<sup>5</sup> See AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, which discusses the auditor's responsibility to obtain sufficient appropriate evidence to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in the financial statements.

II. AS 1105 is amended by adding a note at the end of paragraph .08:

Note: If a third party provides evidence to an auditor subject to restrictions, limitations, or disclaimers, the auditor should evaluate the effect of the restrictions, limitations, or disclaimers on the reliability of that evidence.

III. AS 1105 is amended by adding a new Appendix B:

**Appendix B—Audit Evidence Regarding Valuation of Investments Based on Investee Financial Results**

.B1 For valuations based on an investee's financial results, the auditor should obtain sufficient appropriate evidence in support of the investee's financial results. The auditor should read available financial statements of the investee and the accompanying audit report, if any. Financial statements of the investee that have been audited by an auditor whose report is satisfactory, for this purpose,<sup>1</sup> to the investor's auditor may constitute sufficient appropriate evidence.

<sup>1</sup> In determining whether the report of another auditor is satisfactory for this purpose, the auditor may consider performing procedures such as making inquiries as to the professional reputation and standing of the other auditor, visiting the other auditor and discussing the audit procedures followed and the results thereof, and reviewing the audit program and/or working papers of the other auditor.

.B2 If in the auditor's judgment additional evidence is needed, the auditor should perform procedures to gather such evidence. For example, the auditor may conclude that additional evidence is needed because of significant differences in fiscal year-ends, significant differences in accounting principles, changes in ownership, changes in conditions affecting the use of the equity method, or the materiality of the investment to the investor's financial position or results of operations. Examples of procedures the auditor may perform are reviewing information in the investor's files that relates to the investee such as investee minutes and budgets and cash flows information about the investee and making inquiries of investor management about the investee's financial results.

.B3 If the investee's financial statements are not audited, or if the investee auditor's report is not satisfactory to the investor's auditor for this purpose, the investor's auditor should apply, or should request that the investor arrange with the investee to have another auditor apply, appropriate auditing procedures to such financial statements, considering the materiality of the investment in relation to the financial statements of the investor.

.B4 If the carrying amount of the security reflects factors that are not recognized in the investee's financial statements or fair values of assets that are materially different from the investee's carrying amounts, the auditor should obtain sufficient appropriate evidence in support of these amounts.

Note: The auditor should look to the requirements of AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, and the

applicable financial reporting framework with respect to auditing fair value measurements and evaluating asset impairment.

.B5 There may be a time lag in reporting between the date of the financial statements of the investor and that of the investee. A time lag in reporting should be consistent from period to period. If a time lag between the date of the entity's financial statements and those of the investee has a material effect on the entity's financial statements, the auditor should determine whether the entity's management has properly considered the lack of comparability. The effect may be material, for example, because the time lag is not consistent with the prior period in comparative statements or because a significant transaction occurred during the time lag. If a change in time lag occurs that has a material effect on the investor's financial statements, an explanatory paragraph, including an appropriate title, should be added to the auditor's report because of the change in reporting period.<sup>2</sup>

<sup>2</sup> See AS 2820, *Evaluating Consistency of Financial Statements*.

.B6 The auditor should evaluate management's conclusion about the need to recognize an impairment loss for a decline in the security's fair value below its carrying amount that is other than temporary. In addition, with respect to subsequent events and transactions of the investee occurring after the date of the investee's financial statements but before the date of the investor auditor's report, the auditor should read available interim financial statements of the investee and make appropriate inquiries of the investor to identify subsequent events and transactions that are material to the investor's financial statements. Such events or transactions of the type contemplated in paragraphs .05–.06 of AS 2801, *Subsequent Events*, should be disclosed in the notes to the investor's financial statements and (where applicable) labeled as unaudited information. For the purpose of recording the investor's share of the investee's results of operations, recognition should be given to events or transactions of the type contemplated in AS 2801.03.

.B7 Evidence relating to material transactions between the entity and the investee should be obtained to evaluate (a) the propriety of the elimination of unrealized profits and losses on transactions between the entity and the investee that is required when the equity method of accounting is used to account for an investment under the applicable financial reporting framework and (b) the adequacy of disclosures about material related party transactions.

- IV. AS 1205 is amended by adding footnote 6 to paragraph .14, such that AS 1205.14 reads as follows:

**Long-Term Investments**

.14 With respect to investments accounted for under the equity method, the auditor who uses another auditor's report for the purpose of reporting on the investor's equity in underlying net assets and its share of earnings or losses and other transactions of the investee is in the position of a principal auditor using the work and reports of other auditors. Under these circumstances, the auditor may decide that it would be appropriate to refer to the work and report of the other auditor in his report on the financial statements of the investor. (See paragraphs .06–.11.) When the work and reports of other auditors constitute a major element of evidence with respect to investments accounted for under the cost method, the auditor may be in a position analogous to that of a principal auditor.<sup>6</sup>

<sup>6</sup> For situations in which the valuation of an investment selected for testing is based on the investee's financial results and neither AS 1201 nor AS 1205 applies, the auditor should look to the requirements of Appendix B of AS 1105, *Audit Evidence*.

- V. AS 1301 is amended by revising footnote 17 to paragraph .12 to read as follows:

<sup>17</sup> See AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, which discusses the auditor's responsibility to obtain sufficient appropriate evidence to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in the financial statements.

- VI. AS 1301 is amended by revising footnote 23 to paragraph .13 to read as follows:

<sup>23</sup> See AS 2501, which discusses the auditor's responsibility to obtain sufficient appropriate evidence to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in the financial statements.

- VII. AS 1301 is amended by deleting the thirteenth bullet of Appendix B, referring to AS 2502, *Auditing Fair Value Measurements and Disclosures*.

- VIII. AS 2110 is amended by revising subparagraphs (d) and (e) of paragraph .28 and adding a second and third note, such that AS 2110.28 reads as follows:

.28 *Information System Relevant to Financial Reporting.* The auditor should obtain an understanding of the information system, including the related business processes, relevant to financial reporting, including:

- a. The classes of transactions in the company's operations that are significant to the financial statements;
- b. The procedures, within both automated and manual systems, by which those transactions are initiated, authorized, processed, recorded, and reported;
- c. The related accounting records, supporting information, and specific accounts in the financial statements that are used to initiate, authorize, process, and record transactions;
- d. How the information system captures events and conditions, other than transactions,<sup>16</sup> that are significant to the financial statements;
- e. Whether the related accounts involve accounting estimates and if so, the processes used to develop accounting estimates, including:
  - (1) The methods used, which may include models;
  - (2) The data and assumptions used, including the source from which they are derived; and
  - (3) The extent to which the company uses third parties (other than specialists), including the nature of the service provided and the extent to which the third parties use company data and assumptions; and
- f. The period-end financial reporting process.

Note: Appendix B discusses additional considerations regarding manual and automated systems and controls.

Note: The requirements in AS 2601, *Consideration of an Entity's Use of a Service Organization*, with respect to the auditor's responsibilities for obtaining an understanding of controls at the service organization apply when the company uses a service organization that is part of the company's information system over financial reporting.



Note: For critical accounting estimates,<sup>16A</sup> paragraph .18 of AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, provides that the auditor should obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect on its financial condition or operating performance,<sup>16B</sup> and take that understanding into account when evaluating the reasonableness of significant assumptions and potential management bias.

<sup>16</sup> Examples of such events and conditions include depreciation and amortization and conditions affecting the recoverability of assets.

<sup>16A</sup> See paragraph .A3 of AS 1301, *Communications with Audit Committees*.

<sup>16B</sup> See U.S. Securities and Exchange Commission, Financial Reporting Release No. 72, *Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations* (Dec. 19, 2003), 68 FR 75056 (Dec. 29, 2003), at Section V ("Critical Accounting Estimates") for management's responsibilities related to critical accounting estimates.

IX. AS 2110 is amended by revising the first bullet of paragraph .52 to read as follows:

- An exchange of ideas, or "brainstorming," among the key engagement team members, including the engagement partner, about how and where they believe the company's financial statements might be susceptible to material misstatement due to fraud, how management could perpetrate and conceal fraudulent financial reporting, and how assets of the company could be misappropriated, including (a) the susceptibility of the financial statements to material misstatement through related party transactions, (b) how fraud might be perpetrated or concealed by omitting or presenting incomplete or inaccurate disclosures, and (c) how the financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures;

X. AS 2110 is amended by adding a new paragraph .60A after paragraph .60:

.60A Additional risk factors relevant to the identification of significant accounts and disclosures involving accounting estimates include the following:



- a. The degree of uncertainty associated with the future occurrence or outcome of events and conditions underlying the significant assumptions;
- b. The complexity of the process for developing the accounting estimate;
- c. The number and complexity of significant assumptions associated with the process;
- d. The degree of subjectivity associated with significant assumptions (for example, because of significant changes in the related events and conditions or a lack of available observable inputs); and
- e. If forecasts are important to the estimate, the length of the forecast period and degree of uncertainty regarding trends affecting the forecast.

- XI. AS 2301 is amended by adding a second note at the end of paragraph .17:

Note: For certain accounting estimates involving complex models or processes, it might be impossible to design effective substantive tests that, by themselves, would provide sufficient appropriate evidence regarding the assertions.

- XII. AS 2301 is amended by adding a note at the end of paragraph .36:

Note: Performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.

- XIII. AS 2301 is amended by deleting footnote 19 to paragraph .38.

- XIV. AS 2301 is amended by adding a footnote to paragraph .40, such that AS 2301.40 reads as follows:

.40 Taking into account the types of potential misstatements in the relevant assertions that could result from identified risks, as required by paragraph .09b., can

help the auditor determine the types and combination of substantive audit procedures that are necessary to detect material misstatements in the respective assertions.<sup>19</sup>

<sup>19</sup> See, e.g., AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*, which discusses the auditor's responsibility to obtain sufficient appropriate evidence to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in the financial statements.

XV. AS 2401 is amended by revising the first paragraph of the third bullet of paragraph .54 to read as follows:

- *Management estimates.* The auditor may identify a fraud risk involving the development of management estimates. This risk may affect a number of accounts and assertions, including asset valuation, estimates relating to specific transactions (such as acquisitions, restructurings, or disposals of a segment of the business), and other significant accrued liabilities (such as pension and other postretirement benefit obligations, or environmental remediation liabilities). The risk may also relate to significant changes in assumptions relating to recurring estimates.

XVI. AS 2401 is amended by revising the first sentence of the second paragraph of the third bullet of paragraph .54 to read as follows:

In addressing an identified fraud risk involving accounting estimates, the auditor may want to supplement the audit evidence otherwise obtained (see AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements*).

XVII. AS 2401 is amended by revising paragraphs .63 through .64 to read as follows:

**.63 *Reviewing accounting estimates for biases that could result in material misstatement due to fraud.*** In preparing financial statements, management is responsible for making a number of judgments or assumptions that affect accounting estimates and for monitoring the reasonableness of such estimates on an ongoing basis. Fraudulent financial reporting often is accomplished through intentional misstatement of accounting estimates. AS 2810.24–.27 discuss the auditor's responsibilities for assessing bias in accounting estimates and the effect of bias on the financial statements.

.64 The auditor should perform a retrospective review of accounting estimates in significant accounts and disclosures<sup>24</sup> by comparing the prior year's estimates to actual results, if any, to determine whether management's judgments and assumptions relating to the estimates indicate a possible bias on the part of management. The accounting estimates selected for testing should be those for which there is an assessed fraud risk. With the benefit of hindsight, a retrospective review should provide the auditor with additional information about whether there may be a possible bias on the part of management in making the current-year estimates. This review, however, is not intended to call into question the auditor's professional judgments made in the prior year that were based on information available at the time.

<sup>24</sup> See AS 2110.60–.64, which describes requirements related to the identification of significant accounts and disclosures.

XVIII. AS 2502 and AS 2503 are rescinded.

XIX. AS 2805 is amended by adding a new subparagraph to paragraph .06, after subparagraph s:

s-1. The appropriateness of the methods, the consistency in application, the accuracy and completeness of data, and the reasonableness of significant assumptions used by the company in developing accounting estimates.

XX. AS 3101 is amended by revising footnote 34 to paragraph .18 to read as follows:

<sup>34</sup> See paragraph .B5 of Appendix B, *Audit Evidence Regarding Valuation of Investments Based on Investee Financial Results*, of AS 1105, *Audit Evidence*.

XXI. AS 4105 is amended by deleting footnote 36 to paragraph .B1.

XXII. AI 16 is rescinded.

## **APPENDIX 3**

### **Additional Discussion of AS 2501 (Revised) and Amendments**

<u>Outline of Contents of This Appendix</u>	<u>Page</u>
I. Introduction	A3-1
II. AS 2501 (Revised)	A3-2
III. Amendments to PCAOB Auditing Standards	A3-55

#### **I. Introduction**

This appendix provides additional details regarding auditing standard AS 2501, *Auditing Accounting Estimates, Including Fair Value Measurements* ("AS 2501 (Revised)" or the "new standard"), presented in Appendix 1, and the related amendments presented in Appendix 2 (the "amendments"). Briefly, the new standard and related amendments replace three existing standards<sup>1</sup> and set forth requirements for auditing accounting estimates, including fair value measurements,<sup>2</sup> in significant accounts and disclosures.

In particular, this appendix discusses significant comments received on the proposed standard and amendments (collectively, the "proposal"),<sup>3</sup> along with revisions made by the Public Company Accounting Oversight Board ("PCAOB" or "Board") after consideration of those comments.

---

<sup>1</sup> The three standards being replaced are AS 2501, *Auditing Accounting Estimates* ("accounting estimates standard"); AS 2502, *Auditing Fair Value Measurements and Disclosures* ("fair value standard"), and AS 2503, *Auditing Derivative Instruments, Hedging Activities, and Investments in Securities* ("derivatives standard"). These standards are collectively referred to as the "estimates standards." Additionally, an auditing interpretation, AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501*, is being rescinded.

<sup>2</sup> For the purposes of this rulemaking, a fair value measurement is considered a form of accounting estimate.

<sup>3</sup> See *Proposed Auditing Standard—Auditing Accounting Estimates, Including Fair Value Measurements and Proposed Amendments to PCAOB Auditing Standards*, PCAOB Release No. 2017-002 (June 1, 2017).

Additionally, this appendix compares the requirements of the new standard and related amendments with the analogous requirements of the following standards:

- International Standard on Auditing 540 (Revised), *Auditing Accounting Estimates and Related Disclosures* ("ISA 540 Revised"), adopted by the International Auditing and Assurance Standards Board ("IAASB"); and
- AU-C Section 540, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates, and Related Disclosures* ("AU-C Section 540"), adopted by the Auditing Standards Board ("ASB") of the American Institute of Certified Public Accountants.

The comparison does not necessarily represent the views of the IAASB or ASB regarding the interpretation of their standards. Additionally, the information presented in this appendix does not include the application and explanatory material in the IAASB standards or ASB standards.<sup>4</sup>

## **II. AS 2501 (Revised)**

### **A. Scope of the Standard**

*See paragraphs .01–.02*

As in the proposal, the new standard applies when auditing accounting estimates in significant accounts and disclosures. Commenters on this topic supported the scope set forth in the standard.

#### *Comparison with Standards of Other Standard Setters*

The scope and nature of accounting estimates described in ISA 540 Revised, AU-C Section 540, and the new standard share some common concepts. However, the accounting estimates covered by the new standard are expressly linked to significant accounts and disclosures.

---

<sup>4</sup> Paragraph A59 of ISA 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing*, and paragraph .A64 of AU-C Section 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with Generally Accepted Auditing Standards*, indicate that the related application and other explanatory material "does not in itself impose a requirement" but "is relevant to the proper application of the requirements" of the respective standards.

## **B. Objective of the Standard**

*See paragraph .03*

In the proposal, the standard included a detailed objective expressly addressing the fundamental aspects of auditing accounting estimates under the estimates standards: testing and evaluating whether accounting estimates (1) are reasonable in the circumstances, (2) have been accounted for and disclosed in conformity with the applicable financial reporting framework, and (3) are free from bias that results in material misstatement.

Commenters asserted that including the phrase "free from bias that results in material misstatement" as a distinct element of the audit objective was not clear, could imply absolute assurance, or could be interpreted as a broader obligation than what is required under the existing standards. Some commenters recommended deleting the reference to bias from the objective, and others suggested revisions in order to clarify the intent of including the reference to bias in the objective. One commenter suggested that the objective should be for auditors to determine whether accounting estimates and disclosures are reasonable in the context of the applicable financial reporting framework, which in the commenter's view would be broader than the proposed objective.

After consideration of comments, the Board has (1) revised the objective to describe the overall purpose of the procedures required under the new standard and other relevant procedures under the risk assessment standards (specifically, to determine whether accounting estimates in significant accounts and disclosures are properly accounted for and disclosed in financial statements);<sup>5</sup> (2) relocated the description of more specific auditor responsibilities—evaluating conformity with the applicable financial reporting framework, reasonableness, and potential management bias—from the objective to the requirements;<sup>6</sup> and (3) provided additional context in the requirements to enhance clarity, including citing corresponding requirements in other PCAOB standards. In addition, for conciseness, the new standard and amendments have been revised to consistently use the phrase "sufficient appropriate evidence," which has the same meaning in PCAOB standards as the phrase "sufficient appropriate audit evidence."

---

<sup>5</sup> This approach to formulating an objective is similar to the approach in other PCAOB standards. See e.g., paragraph .02 of AS 2410, *Related Parties*.

<sup>6</sup> See first note to paragraph .05 of the new standard.



As discussed in more detail below, the revised objective links more closely with the requirements of the risk assessment standards<sup>7</sup> and continues to focus auditors on their existing obligations to evaluate potential management bias in the context of auditing accounting estimates.

*Comparison with Standards of Other Standard Setters*

The objective of ISA 540 Revised is to obtain sufficient appropriate audit evidence about whether accounting estimates and related disclosures in the financial statements are reasonable in the context of the applicable financial reporting framework. The objective of AU-C Section 540 is substantially the same but also includes whether related disclosures in the financial statements are adequate.

**C. Identifying and Assessing Risks of Material Misstatement**

*See paragraph .04*

The proposed standard discussed how the auditor's responsibilities regarding the process of identifying and assessing risks of material misstatement, as set forth in AS 2110 apply to auditing accounting estimates. The proposed requirement provided that, among other things, identifying and assessing risks of material misstatement related to accounting estimates includes determining whether the components of estimates in significant accounts and disclosures are subject to significantly differing risks, and which estimates are associated with significant risks.<sup>8</sup>

One commenter asserted that the term "components" should be defined and another commenter observed that "components of estimates" could be interpreted to mean inputs used to develop the estimate, or individual accounts that roll up into a financial statement line item.

---

<sup>7</sup> The Board's "risk assessment standards" include AS 1101, *Audit Risk*; AS 1105, *Audit Evidence*; AS 1201, *Supervision of the Audit Engagement*; AS 2101, *Audit Planning*; AS 2105, *Consideration of Materiality in Planning and Performing an Audit*; AS 2110, *Identifying and Assessing Risks of Material Misstatement*; AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*; and AS 2810, *Evaluating Audit Results*. These standards set forth requirements relating to the auditor's assessment of, and response to, the risks of material misstatement in the financial statements.

<sup>8</sup> See AS 2110.70–.71.

AS 2501 (Revised) retains paragraph .04 as proposed, including the reference to components of estimates. This reference is not new and derives from the concept in the risk assessment standards that components of a potential significant account or disclosure might be subject to significantly differing risks<sup>9</sup> which would need to be taken into account in designing and performing audit procedures. For example, a valuation allowance in the company's financial statements may include a general component and a specific component with differing risks.

*Comparison with Standards of Other Standard Setters*

In identifying and assessing the risks of material misstatement, ISA 540 Revised requires the auditor to separately assess inherent risk and control risk. The auditor is required to take into account, in assessing inherent risk (a) the degree to which the accounting estimate is subject to estimation uncertainty, and (b) the degree to which (i) the selection and application of the method, assumptions and data in making the accounting estimate; or (ii) the selection of management's point estimate and related disclosures for inclusion in the financial statements, are affected by complexity, subjectivity, or other inherent risk factors.<sup>10</sup>

AU-C Section 540 requires the auditor to evaluate the degree of estimation uncertainty associated with an accounting estimate in identifying and assessing the risks of material misstatement.

**D. Responding to the Risks of Material Misstatement**

*See paragraphs .05–.07*

The proposed standard explained how the basic requirement in AS 2301 to respond to the risks of material misstatement applies when performing substantive procedures for accounting estimates in significant accounts and disclosures. Additionally, the proposal provided that responding to risks of material misstatement in the context of accounting estimates involves, among other things, (1) testing whether estimates in significant accounts and disclosures are in conformity with the applicable financial reporting framework, (2) responding to significantly differing risks of material misstatement in the components of an accounting estimate, and (3) applying

---

<sup>9</sup> See AS 2110.63.

<sup>10</sup> ISA 540 Revised and AU-C Section 540 also include requirements related to identification of significant risks related to accounting estimates. AS 2110 sets forth requirements for identifying significant risks under PCAOB standards.



professional skepticism in gathering and evaluating audit evidence, particularly when responding to fraud risks. The proposed standard also reminded auditors that, as the assessed risk of material misstatement increases, the evidence that the auditor should obtain also increases. The evidence provided by substantive procedures depends on the mix of the nature, timing, and extent of those procedures.

Commenters provided views on various aspects of the proposed requirements. One commenter asked for clarification on the role of professional skepticism in relation to fraud risks and management bias. Another commenter advocated for a framework against which auditor skepticism can be evaluated. Other commenters suggested including requirements to evaluate both corroborative and contradictory audit evidence similar to AS 1105.02. A few commenters also requested clarification of how substantive procedures related to accounting estimates can be performed at an interim date.

The new standard retains the discussion of the auditor's responsibilities for responding to risks associated with estimates substantially as proposed. The statements in the new standard related to responding to the risks of material misstatement are rooted in the Board's risk assessment standards and drew no critical comments.

The new standard reflects two changes from the proposal. As noted above, the description of more specific auditor responsibilities—evaluating conformity with the applicable accounting framework, reasonableness, and potential management bias—has been relocated from the objective to paragraph .05 to provide additional context for responding to risks of material misstatement. Specifically, the new standard states that responding to risks of material misstatement involves evaluating whether the accounting estimates are in conformity with the applicable financial reporting framework and reasonable in the circumstances, as well as evaluating potential management bias in accounting estimates and its effect on the financial statements. Notably, the added language regarding potential management bias is aligned with paragraphs AS 2810.24–.27 to remind auditors of existing requirements.

Additionally, the new standard now includes a reference to AS 1105.02, as suggested by some commenters, reminding auditors that audit evidence consists of both information that supports and corroborates management's assertions regarding the financial statements and information that contradicts such assertions.

With respect to the comments regarding guidance on professional skepticism and performing procedures at interim dates, other PCAOB standards already address the auditor's responsibilities in those areas, and the new standard does not change that direction with respect to auditing estimates. For example, paragraphs .07–.09 of AS 1015, *Due Professional Care in the Performance of Work*, paragraph .13 of AS 2401, *Consideration of Fraud in a Financial Statement Audit*, and AS 2301.07 address

the appropriate application of professional skepticism, and AS 2301.43–.46 discusses the auditor's responsibilities when performing substantive procedures at an interim date. Those standards apply when auditing accounting estimates.

#### Scalability of the Standard

In response to questions in the proposal, commenters expressed mixed views on the scalability of the proposed requirements. Some commenters indicated that the proposed requirements were sufficiently scalable, while others identified challenges in scaling the auditor's response to identified risks in accounting estimates and requested additional guidance. For example, some commenters opined that it was not clear how auditors would tailor their response to an estimate that represented a significant risk of material misstatement compared with a lower risk estimate. One commenter advocated for further guidance to address situations where an estimate is deemed to have a low inherent risk. Another commenter indicated that it is important to recognize that the amount of evidence may not necessarily increase, but the persuasiveness and sufficiency of the evidence should increase.

The new standard is designed to be scalable because the necessary audit evidence depends on the corresponding risk of material misstatement. The standard does not prescribe detailed procedures or the extent of procedures, beyond the requirement to respond to the risk, including significant risk, and the direction for applying the primary approaches for testing. Rather, it builds on the requirements of AS 2301 to design procedures that take into account the types of potential misstatements that could result from the identified risks and the likelihood and magnitude of potential misstatement.<sup>11</sup> Specific risk factors associated with the estimates—for example, subjective assumptions, measurement uncertainty, or complex processes or methods<sup>12</sup>—would affect the auditor's risk assessment and in turn, the required audit effort. For example:

- Testing a simple calculation of depreciation expense, including evaluating remaining useful lives, for a group of assets of the same type with similar usage and condition would generally require less audit effort than testing asset retirement obligations that involve significant assumptions about

---

<sup>11</sup> AS 2301.09.

<sup>12</sup> See AS 2110.60A, as amended, for examples of specific risk factors.

costs not yet incurred based on estimation of the probability of future events.

- In testing the valuation of assets acquired and liabilities assumed in a business combination, more audit effort would need to be directed to assets and liabilities whose valuation involves more subjective assumptions, such as identifiable intangible assets and contingent consideration, than to assets with readily determinable values.

Additionally, the new standard echoes language from AS 2301.37 in stating that, as the assessed risk of material misstatement increases, the evidence from substantive procedures that the auditor should obtain also increases. Consistent with AS 2301, for an individual accounting estimate, different combinations of the nature, timing, and extent of testing might provide sufficient appropriate evidence to respond to the assessed risk of material misstatement for the relevant assertion.

#### Selection of Approaches

The proposed standard retained the requirement to test accounting estimates using one or a combination of three basic approaches from the estimates standards: (1) testing the company's process, (2) developing an independent expectation, and (3) evaluating audit evidence from events or transactions occurring after the measurement date. The proposed standard also included a note reminding auditors that their understanding of the process the company used to develop the estimate, along with results of tests of relevant controls, should inform the auditor's decisions about the approach he or she takes to auditing an estimate.

Several commenters expressed support for retaining the three common approaches, as set forth in the proposal. Other commenters indicated that the proposal should emphasize that testing the company's process may not always be the best audit approach; with one commenter noting that the proposed requirement may lead auditors to test management's process substantively, regardless of whether another approach will provide the same or more persuasive audit evidence. Two commenters stressed the importance of developing an independent expectation and suggested this approach be selected in addition to testing the company's process. None of these commenters, however, suggested that the selection of substantive approaches should be limited.

Some commenters sought further direction on how the auditor would obtain sufficient evidence when using a combination of approaches, with some commenters asserting that, for example, the proposed requirement might result in inconsistent application or auditors unnecessarily performing all procedures under each approach. One commenter asked the Board to clarify whether documentation of a specific testing approach is expected.

Some commenters also requested guidance on the application of specific testing approaches. For instance, one commenter suggested that the Board consider directing auditors to always evaluate audit evidence from events or transactions occurring after the measurement date related to the accounting estimate, as, in their view, there would be limited circumstances in which this approach would not provide appropriate audit evidence to determine whether accounting estimates are reasonable. Another commenter added that events occurring after the measurement date may effectively eliminate estimation uncertainty, which affects risk assessment and the audit response related to valuation. This commenter suggested the proposal clarify the extent of additional procedures required, if any, when such events are considered and tested.

One commenter suggested more guidance be provided about how an auditor's understanding of management's process affects the auditor's planned response to assessed risk in accordance with AS 2301. This commenter also observed that the note to paragraph .07 may be read to mean that relevant controls are expected to be tested in all audits and suggested a footnote reference to relevant requirements of AS 2301.

The new standard retains the requirements for testing accounting estimates substantially as proposed, allowing the auditor to determine the approach or combination of approaches appropriate for obtaining sufficient appropriate evidence to support a conclusion about the particular accounting estimate being audited. The new standard takes into account that accounting estimates vary in nature and in how they are developed. Therefore, mandating a particular testing approach may not be feasible or practical in the circumstances. For example, in some cases, data and significant assumptions underlying the estimate may be largely based on a company's internal information (e.g., sales projections or employee data), or the estimate may be generated using a customized company-specific model. In those situations, the auditor may not have a reasonable alternative to testing the company's process. Similarly, there may not be any events or transactions occurring after the measurement date related to certain estimates (e.g., the outcome of a contingent liability might not be known for a number of years). Rather than imposing limits on the selection of approaches, the new standard describes the auditor's responsibilities for appropriately applying the selected approach, or combination of approaches, to obtain sufficient appropriate evidence and performing an appropriate evaluation of the evidence obtained.

As under the estimates standards, the new standard allows for the auditor to use a combination of approaches to test an estimate. For example, some estimates consist of multiple components (e.g., valuation allowances) and the auditor may vary the approaches used for the individual components. The auditor may also choose to develop an independent expectation of a significant assumption used by the company in conjunction with testing the company's process for developing the estimate. Whether using a combination of approaches or a single approach, the auditor is required to have a reasonable basis for using alternative methods or deriving his or her own

assumptions, as discussed in more detail below. Similarly, when using information produced by the company as audit evidence, the auditor is required to evaluate whether that information is sufficient and appropriate for the purposes of the audit, regardless of the approach the auditor uses to test the estimate.<sup>13</sup>

The new standard also carries forward the point from the accounting estimate standard that the auditor's understanding of the company's process for developing the estimate, and, if relevant controls are tested, the results of those tests, informs the auditor's decision about which approach or approaches to take. AS 2301 describes the auditor's responsibilities for testing controls in a financial statement audit. The new standard does not change those responsibilities, including the circumstances under which the auditor is required to test controls. Rather, the standard emphasizes that the results of the auditor's tests of controls can affect the nature, timing and extent of planned substantive procedures. Further, the auditor's understanding of the company's process related to an estimate can provide insight into the nature and extent of available audit evidence, and thus inform the auditor's selection of approaches.

Lastly, the new standard does not set forth requirements for audit documentation. The auditor's responsibilities with respect to audit documentation are addressed in AS 1215, *Audit Documentation*. Accordingly, audit documentation relevant to selection of approaches should be evident to an experienced auditor, having no previous connection with the engagement.<sup>14</sup>

#### *Comparison with Standards of Other Standard Setters*

ISA 540 Revised requires the auditor's procedures to be responsive to the assessed risks of material misstatement at the assertion level, considering the reasons for the assessment given to those risks, and include one or more of the three approaches to substantive testing (similar to the new standard).<sup>15</sup>

ISA 540 Revised also includes a requirement for the auditor to take into account that the higher the assessed risk of material misstatement, the more persuasive the

---

<sup>13</sup> See AS 1105.10.

<sup>14</sup> See AS 1215.06.

<sup>15</sup> ISA 540 Revised also includes requirements for tests of controls. AS 2301 sets forth requirements for tests of controls in financial statement audits under PCAOB standards.



audit evidence needs to be. The auditor is required to design and perform further audit procedures in a manner that is not biased towards obtaining audit evidence that may be corroborative or towards excluding audit evidence that may be contradictory.

AU-C Section 540 requires the auditor to determine whether management has appropriately applied the requirements of the applicable financial reporting framework relevant to the accounting estimate. In responding to the assessed risks of material misstatement, AU-C Section 540 also requires the auditor to undertake one or more of the three approaches discussed above, as well as providing an approach to perform a combination of tests of controls over the estimate along with substantive procedures.

**E. Testing the Company's Process Used to Develop the Accounting Estimate**

*See paragraph .09*

The proposed standard included an introductory statement explaining the purpose of and steps involved in testing the company's process. Specifically, the standard explained that testing the company's process involves performing procedures to test and evaluate the methods, data, and significant assumptions used to develop the company's estimate in order to form a conclusion about whether the estimate is reasonable in the circumstances, in conformity with the applicable financial reporting framework, and free from bias that results in material misstatement.

Similar to the comments received on the proposed objective, some commenters expressed concerns about the phrase "free from bias that results in material misstatement" when describing the auditor's responsibilities in this area. One commenter also asked whether these requirements would apply to assumptions, models, and data provided by a company specialist. Another commenter sought clarification on the meaning of the terms "test," "data," and "assumptions."

As with the objective of the standard, paragraph .09 of the new standard was revised to describe an overarching concept for testing the company's process—that is, to form a conclusion about whether the estimate is properly accounted for and disclosed in financial statements. These revisions are responsive to comments and link the auditor's responsibilities more closely to the requirements of the Board's risk assessment standards.

As discussed in more detail below, the new standard directs the auditor to look to the requirements in Appendix A of AS 1105<sup>16</sup> for the auditor's responsibilities with respect to using the work of a company's specialist in the audit. This direction has been modified from the proposal to align with changes to the Specialists Release.

Finally, the meaning of the terms "test," "data," and "assumptions" in the new standard is consistent with the meaning of these terms used in the estimates standards and other PCAOB standards.

#### *Comparison with Standards of Other Standard Setters*

ISA 540 Revised provides that, as part of testing how management made the accounting estimate, the auditor is required to perform procedures to obtain sufficient appropriate audit evidence regarding the risks of material misstatement relating to (a) selection and application of the methods, significant assumptions and the data used by management in making the accounting estimate, and (b) how management selected the point estimate and developed related disclosures about estimation uncertainty.<sup>17</sup>

AU-C Section 540 provides that as part of testing how management made the accounting estimate and the data on which it is based, the auditor should evaluate whether the method of measurement used is appropriate in the circumstances, the assumptions used by management are reasonable in light of the measurement objectives of the applicable financial reporting framework, and the data on which the estimate is based is sufficiently reliable for the auditor's purposes.

#### *1. Evaluating the Company's Methods*

*See paragraphs .10–.11*

The proposed standard provided that the auditor should evaluate whether the methods used by the company are (1) in conformity with the applicable financial reporting framework, including evaluating whether the data and significant assumptions

---

<sup>16</sup> The auditor's responsibilities with respect to using the work of a company specialist are presented as Appendix A of AS 1105. See *Amendments to Auditing Standards for the Use of the Work of Specialists*, PCAOB Release No. 2018-006 (Dec. 20, 2018) ("Specialists Release").

<sup>17</sup> The Board's risk assessment standards address the auditor's responsibilities for responding to risks of material misstatement and obtaining sufficient appropriate evidence.

are appropriately applied; and (2) appropriate for the nature of the related account or disclosure and the company's business, industry, and environment. The proposed requirements were similar to certain requirements of the fair value standard.<sup>18</sup>

A number of commenters expressed concerns about the requirement to evaluate whether the company's methods are appropriate for the company's "business, industry, and environment" because in their view, the requirement seemed to suggest all companies within a particular industry use, or should use, the same method. Two commenters also suggested adding specific requirements—to evaluate models used by the company and test the mathematical accuracy of the calculations used by the company to translate its assumptions into the accounting estimate. One commenter sought clarification on the intent of the requirement to evaluate whether the data and significant assumptions are appropriately applied under the applicable financial reporting framework.

The new standard retains substantially as proposed the requirement to evaluate whether the methods used by the company are in conformity with the applicable financial reporting framework, including evaluating whether the data is appropriately used and significant assumptions are appropriately applied under the framework. The applicable financial reporting framework may prescribe a specific method to develop an estimate or allow for alternative methods, or provide guidance on how to apply the method, including guidance on the selection or use of assumptions or data. Evaluating whether the company's method is in conformity with the financial reporting framework involves evaluating whether the data is appropriately used and significant assumptions are appropriately applied by the method, which, if applicable, would include testing the mathematical accuracy of the calculations under the method.

The methods used by the company may involve the use of a model (e.g., expected future cash flows). The new standard does not prescribe specific procedures for testing models, as suggested by one commenter.<sup>19</sup> The Board believes that

---

<sup>18</sup> See AS 2502.15 and .18.

<sup>19</sup> This commenter advocated for the approach taken by the IAASB regarding models. ISA 540 Revised requires that, when management's application of the method involves complex modeling, the auditor's procedures address whether judgments have been applied consistently and, when applicable, whether (1) the design of the model meets the measurement objective of framework, is appropriate in the circumstances, and changes from the prior period's model are appropriate in the circumstances; and (2) adjustments to the output of the model are consistent with the measurement objective and are appropriate in circumstances.



requirements specific to models are not necessary because evaluating the method, as discussed above, includes consideration of models to the extent necessary to reach a conclusion on the appropriateness of the method. Under the new standard, the necessary audit procedures to evaluate the method used by the company (which, as appropriate, include models involved in the method) are commensurate with the assessed risks associated with the estimate. For example, the risks associated with a method that uses a commercially available valuation model may relate to whether the model is appropriate for the related estimate under the applicable financial reporting framework, whereas the risks associated with a method that uses an internally-developed company model may include additional risks associated with how the model was developed. In this example, the internally-developed model scenario would require greater audit effort to respond to the broader range of risks, as compared to the commercially available model scenario. In either case, the auditor would evaluate whether the method was used appropriately, including whether adjustments, if any, to the output of the model were appropriate.

After consideration of comments, the requirement regarding evaluating the appropriateness of the method was revised to remove the reference to the company's business and industry. Under the new standard, the auditor is required to evaluate whether the company's method is appropriate for the nature of the related account or disclosure, taking into account the auditor's understanding of the company and its environment. This revised requirement is consistent with the risk assessment standards because the auditor's evaluation of the method (a substantive procedure) is informed by the auditor's understanding of the company and its environment (obtained through the auditor's risk assessment procedures).<sup>20</sup> Notably, part of the auditor's procedures for obtaining an understanding of the company and its environment include obtaining an understanding of relevant industry, regulatory, and other external factors, and evaluating the company's selection and application of accounting principles.<sup>21</sup>

The proposed standard also addressed circumstances in which a company has changed its method for developing an accounting estimate by requiring the auditor to determine the reasons for and evaluate the appropriateness of such change.

---

<sup>20</sup> Additionally, AS 2301.05d requires the auditor to evaluate whether the company's selection and application of significant accounting principles, particularly those related to subjective measurements and complex transactions, are indicative of bias that could lead to material misstatement of the financial statements.

<sup>21</sup> AS 2110.09 and .12–.13.

One commenter asserted that it would be more appropriate to require the auditor to evaluate whether the company's reasons for making the change are appropriate. This commenter also sought clarification on what constitutes a change in method and on the auditor's responsibility when the company has not made a determination about whether different methods result in significantly different estimates. Another commenter expressed concern that, because of a lack of clarity about the definition of "method" and what constitutes a change, the proposed requirement could result in potentially onerous documentation necessary to support changes to methods. Finally, one commenter suggested adding a requirement for the auditor to evaluate whether the company failed to revise its method to recognize changes in facts and circumstances.

The new standard retains as proposed the requirements for the auditor to (1) determine the reasons for changes to the method used by the company and evaluate the appropriateness of such change, and (2) evaluate the appropriateness of methods selected by the company in circumstances where the company has determined that different methods could result in significantly different estimates. The requirements in the new standard are similar to those in the fair value standard<sup>22</sup> and consistent with the auditor's responsibilities to obtain an understanding of the company's process used to develop the estimate, including the methods used.<sup>23</sup> These requirements also take into account that, in some cases, more than one method may be used to develop a particular estimate. It is important for the auditor to understand the basis for the company's change to its method, as changes that are not based on new information or other changes in the company's circumstances could be indicative of management bias (e.g., changing the method to achieve a favorable financial result).<sup>24</sup>

With respect to other comments raised above, a separate requirement to evaluate whether the company failed to revise its method to recognize changes in facts and circumstances is unnecessary as auditors would make this determination when evaluating appropriateness of the method for the nature of the account or disclosure, taking into account the auditor's understanding of the company and its environment. That understanding should inform the auditor about conditions which might indicate that a change in method is needed. For example, the use of a discounted cash flow method to value a financial instrument may no longer be appropriate once an active market is introduced for the instrument. Moreover, changes to the method could result in a change to the corresponding estimate and affect the consistency of the financial

---

<sup>22</sup> AS 2502.19.

<sup>23</sup> See AS 2110.28, as amended.

<sup>24</sup> See AS 2810 for requirements related to evaluating bias in accounting estimates.

statements (as discussed in AS 2820, *Evaluating Consistency of Financial Statements*).<sup>25</sup> In addition, contrary to the views of one commenter, the new standard does not impose any new documentation requirements to the existing provisions of AS 1215.

### *Comparison with Standards of Other Standard Setters*

ISA 540 Revised provides that the auditor's procedures shall address (a) whether the method selected is appropriate in the context of the applicable financial reporting framework, and, if applicable, whether changes from the method used in prior periods are appropriate; (b) whether judgments made in selecting the method give rise to indicators of possible management bias; (c) whether the calculations are applied in accordance with the method and are mathematically accurate; and (d) whether the integrity of the significant assumptions and the data has been maintained in applying the method.<sup>26</sup>

AU-C Section 540 requires the auditor to determine whether the methods for making the accounting estimate are appropriate and have been applied consistently, and whether changes, if any, in accounting estimates or in the method for making them from the prior period are appropriate in the circumstances. Further, AU-C Section 540 provides that as part of testing how management made the accounting estimate, and the data on which it is based, the auditor evaluates whether the method of measurement used is appropriate in the circumstance.

### *2. Testing Data Used*

*See paragraphs .12–.14*

The proposed standard discussed the auditor's responsibilities for testing and evaluating both internal and external data. This included (1) reiterating existing requirements in AS 1105 to test the accuracy and completeness of information produced by the company, or to test the controls over the accuracy and completeness

---

<sup>25</sup> See also Financial Accounting Standards Board ("FASB") Accounting Standards Codification Topic 250, *Accounting Changes and Error Corrections*.

<sup>26</sup> See also footnote 19 for additional requirements related to models.

of that information;<sup>27</sup> and (2) requiring the auditor to evaluate the relevance and reliability<sup>28</sup> of data from external sources.

The proposed standard also provided that the auditor should evaluate whether the data is used appropriately by the company, including whether (1) the data is relevant to the measurement objective for the accounting estimate; (2) the data is internally consistent with its use by the company in other estimates tested; and (3) the source of the company's data has changed from the prior year and, if so, whether the change is appropriate.

A few commenters called for clarification of various aspects of the proposed requirements pertaining to data. For example, one commenter suggested the requirements clarify that company data supplied to a third party or company specialist is not considered to be data from an external source. This commenter also asked for a framework for evaluating whether the source of the company's data has changed from the prior year and, if so, whether the change is appropriate. Another commenter sought more clarity on whether the requirement applies to all data or may be limited to significant data.

Some commenters also suggested additional requirements in this area. For example, one commenter asserted that the existing requirements related to completeness and accuracy of data in AS 1105 do not themselves constitute a procedure that addresses risks of material misstatement and instead, suggested an express requirement to evaluate whether the data used in the estimate is accurate and complete. Another commenter pointed to the existence of data analytics tools as an alternative to sampling, and advocated for some acknowledgement in the requirements of the importance of the integrity of these tools and the controls over their development. One commenter suggested a requirement to assess whether management has appropriately understood or interpreted significant data.

The new standard retains the requirements for testing and evaluating data substantially as proposed, including requirements to evaluate whether the data is relevant to the measurement objective, internally consistent, and whether the source of the company's data has changed from the prior year and if so, whether the change is appropriate. The new standard builds on the auditor's responsibilities established by AS 1105, including requirements to test the accuracy and completeness of information produced by the company. Contrary to the views of one commenter, AS 1105 currently

---

<sup>27</sup> AS 1105.10.

<sup>28</sup> AS 1105.07–.08.

includes an obligation for the auditor to test company-produced data. Accordingly, an additional requirement to evaluate whether the data used in the estimate is accurate and complete is not necessary. Furthermore, the determination of the data to be tested—and the nature, timing, and extent of that testing—should be based on and responsive to the assessed risks of material misstatement.

Consistent with the proposed standard, AS 2501 (Revised) makes a distinction between procedures to be performed regarding internal data and procedures regarding data from external sources used by the company to develop accounting estimates. Examples of internal data include the company's historical warranty claims and historical losses on defaulted loans. Examples of external data include economic, market, or industry data. Company data supplied by the company to a third party or company specialist is not data from an external source. The new standard also points auditors to Appendix B of AS 1105 for situations in which the valuation of an investment is based on the investee's financial results.

The new standard also retains substantially as proposed requirements to evaluate whether the data was used appropriately by the company. Evaluating the manner in which data was used by the company necessarily builds on the auditor's understanding of the company's process used to develop the estimate. This includes evaluating whether the company's selection and use of data is in conformity with the requirements of the financial reporting framework. Further, devoting audit attention to changes in the data source might reveal potential contradictory evidence and help the auditor identify potential management bias. For example, while a new source of data might result in an estimate that better reflects a company's specific circumstances, a change in data source could also be used by a company to achieve a desired financial result. The new standard has been modified to clarify that evaluating whether the data is used appropriately includes evaluating whether the data is internally consistent with its use by the company in other significant accounts and disclosures based on similar example procedures in the fair value standard.<sup>29</sup>

As noted by one commenter, significant advances in technology have occurred in recent years, including increased use of data analysis tools. The Board considered how changes in technology could affect the approaches to auditing accounting estimates and believes that the new standard and related amendments are sufficiently principles-based and flexible to accommodate continued advances in the use of data and technology by both companies and auditors.

---

<sup>29</sup>

See AS 2502.39.



*Comparison with Standards of Other Standard Setters*

ISA 540 Revised provides that the auditor's procedures shall address (a) whether the data is appropriate in the context of the applicable financial reporting framework, and, if applicable, changes from prior periods are appropriate; (b) whether judgments made in selecting the data give rise to indicators of possible management bias; (c) whether the data is relevant and reliable in the circumstances; and (d) whether the data has been appropriately understood or interpreted by management, including with respect to contractual terms.

AU-C Section 540 provides that in testing how management made the accounting estimate, and the data on which it is based, the auditor should evaluate whether the data on which the estimate is based is sufficiently reliable for the auditor's purposes.

*3. Identification of Significant Assumptions*

*See paragraph .15*

The proposed standard provided that the auditor should identify which of the assumptions used by the company are significant assumptions to the estimate and provided criteria to assist the auditor in making this determination. Furthermore, the proposed standard provided that, if the company has identified significant assumptions used in an estimate, the auditor's identification of significant assumptions should also include those assumptions.

Some commenters expressed concern about one of the factors to be considered in identifying significant assumptions—whether an assumption relates to an identified and assessed risk of material misstatement. The commenters opined that the factor was too broad and could result in an excessive number of assumptions being identified as significant. Some of those commenters suggested adding a note to describe how all of the factors set forth in the proposal work together. A few commenters made other suggestions with respect to this requirement including (1) incorporating the requirement to identify assumptions used by the company which are important to the recognition or measurement of the accounting estimate in the financial statements into AS 2110.28e, as amended; (2) adding a qualifying phrase, such as "as applicable," to the factors because some factors may not always be relevant or may vary in significance; and (3) incorporating the concept described in AS 2502.33 that significant assumptions cover matters that materially affect the estimate.

Some commenters also voiced concerns that the proposed requirement to include as significant those assumptions that the company has identified as significant may not be appropriate because (1) management is not required to designate assumptions as significant, and (2) auditors and company management may reach

different conclusions about which assumptions are significant. One commenter expressed the view that the omission of a requirement to identify assumptions beyond what management identified may be inconsistent with the requirements of AS 2110, and suggested the Board clarify the auditor's responsibilities when, for example, management has not considered a specific assumption needed to correctly apply the applicable accounting framework. Another commenter suggested that assumptions identified by the company as significant should be reflected as an additional factor relevant to identifying significant assumptions rather than a requirement.

After consideration of comments received, the requirement was revised. Specifically, the factor regarding whether an assumption relates to an identified and assessed risk of material misstatement was removed. Instead, the new standard requires the auditor to take into account the nature of the accounting estimate, including related risk factors,<sup>30</sup> the requirements of the applicable financial reporting framework, and the auditor's understanding of the company's process for developing the estimate when identifying significant assumptions. Further, the remaining factors from the proposal—sensitivity to variation, susceptibility to manipulation and bias, unobservable data or adjustments, and dependence on the company's intent and ability to carry out specific courses of action—have been reframed in the new standard as examples of assumptions that would ordinarily be significant. The examples provided are not intended to be an exhaustive list of significant assumptions or a substitute for taking into account the auditor's understanding of the nature of the estimate, including risk factors, the requirements of the applicable financial reporting framework, and his or her understanding of the company's process for developing the estimate. Rather, the examples are provided to illustrate how the concepts in the new standard can be applied to identify significant assumptions that are important to the recognition or measurement of an accounting estimate. The revised formulation provides better context for the application of the requirement, as suggested by some commenters, and prompts auditors to consider those assumptions that drive or are associated with identified risks of material misstatement.

The auditor is not expected to document a detailed comparison of each assumption used in the estimate to each factor or example described above. Instead, consistent with AS 1215, the auditor should document the significant assumptions identified and the auditor's rationale for that determination.

In addition, the proposed note—requiring auditors to include as significant those assumptions that the company has identified as significant assumptions—was not

---

<sup>30</sup> See AS 2110.60–.60A, as amended.

included in the new standard. As discussed above, the new standard requires the auditor, in identifying significant assumptions, to take into account the auditor's understanding of the company's process for developing the estimate, which would include understanding the assumptions used by the company in that estimate (whether expressly identified or implicit in the nature of the estimate or method used). This approach addresses commenter concerns about whether the Board was imposing a responsibility on management to identify significant assumptions.

The intent of the proposed requirement to include significant assumptions identified by the company was to provide the auditor with a starting point for the auditor's evaluation (consistent with the fair value standard). However, since the revised requirement already focuses the auditor on understanding the assumptions used by the company to develop the estimate and the associated risk factors, the new standard does not include a new factor for assumptions identified as significant by management, as suggested by a commenter.

Lastly, the requirement to identify significant assumptions was not relocated to AS 2110.28, as suggested by one commenter, because identifying significant assumptions is an inherent part of testing the company's process for developing estimates.

#### *4. Evaluation of Significant Assumptions*

*See paragraphs .16–.18*

The proposed standard set forth requirements to evaluate the reasonableness of significant assumptions used by the company, both individually and in combination, including evaluating whether (1) the company has a reasonable basis for those assumptions and, when applicable, the company's selection of assumptions from a range of potential assumptions; and (2) significant assumptions are consistent with, among other things, the company's objectives, historical data, the economic environment, and market information. In circumstances when the auditor develops an expectation of an assumption to evaluate its reasonableness, the proposed standard also provided that the auditor should have a reasonable basis for that expectation.

Some commenters asked for clarification of certain aspects of the requirement. For example, a few commenters asked for clarification on the requirement to assess whether management has a reasonable basis for its assumptions. Another commenter asked for an explanation of what "reasonable" is intended to mean in the context of accounting estimates. One commenter sought clarification on how to evaluate differences between management's assumption and the auditor's expectation in circumstances where the auditor develops an expectation of an assumption to evaluate its reasonableness. Another commenter requested that the requirement address factors



relevant to evaluating reasonableness of forward-looking information in anticipation of the new accounting standard on credit losses.<sup>31</sup>

With respect to evaluating consistency with baseline information described in the standard, one commenter asked for clarification of how the requirement to evaluate factors in paragraph .16 works with the requirement to "test" in paragraph .09. This commenter also asked for clarification of the extent of the procedures to be performed when evaluating the consistency of significant assumptions with the contextual information set forth in the standard, where relevant, asserting that the requirement may be difficult to apply in practice. Another commenter suggested that the auditor be required to *consider* whether the assumptions are consistent with the information provided in order to better align the provision with language used by the IAASB.

One commenter suggested inclusion of a specific requirement to assess significant assumptions for management bias.

The new standard retains the requirements for evaluating reasonableness of significant assumptions substantially as proposed. The requirements recognize that estimates are generally developed using a variety of assumptions and focus the auditor on how the company selects its assumptions.

The auditor's assessment of whether the company has a reasonable basis for a significant assumption (including an assumption based on forward-looking information) relates to whether the assumption used by the company is based on an analysis of relevant information, or determined arbitrarily, with little or no such analysis. The auditor's assessment also involves considering whether the company considered relevant evidence, regardless of whether it corroborates or contradicts the company's assumption.

Under the new standard, the auditor should evaluate whether the significant assumptions are consistent with relevant information such as the company's objectives; historical experience (e.g., prior years' assumptions and past practices), taking into account changes in conditions affecting the company; and other significant assumptions in other estimates tested (e.g., assumptions are consistent with each other and other information obtained). This requirement is consistent with requirements in the fair value standard.<sup>32</sup> In making this evaluation, the auditor uses his or her understanding of the

---

<sup>31</sup> See FASB Accounting Standards Update No. 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (June 2016).

<sup>32</sup> See generally AS 2502.29–.36.

company and its environment, the assessed risks of material misstatement, and his or her understanding of the process used to develop the estimates.

In circumstances where the auditor develops an expectation of an assumption to evaluate reasonableness, the auditor is required to have a reasonable basis for that expectation (consistent with the requirements regarding developing independent expectations), taking into account relevant information, including the information set forth in the requirement. The new standard does not prescribe specific follow-up procedures when there are differences between the auditor's expectation and the company's significant assumptions. The nature and extent of procedures would depend on relevant factors such as the reason for the difference and the potential effect of the difference on the accounting estimate.<sup>33</sup>

With respect to the comment regarding management bias, the new standard was revised to provide that responding to risks of material misstatement involves, among other things, evaluating potential management bias in accounting estimates, and its effect on the financial statements (in paragraph .05). Furthermore, the requirements in paragraphs .30–.31 of the new standard, as well as AS 2810.27 address the evaluation of bias in accounting estimates. Therefore, an explicit requirement to evaluate bias as part of evaluating reasonableness of significant assumptions is not necessary.

#### Intent and Ability

As part of evaluating the reasonableness of significant assumptions, the proposed standard provided that the auditor take into account factors (e.g., company's past history of carrying out stated intentions, written plans or other documentation, stated reasons for course of action, and the company's ability to carry out action based on financial resources, legal restrictions, etc.) that affect the company's intent and ability to carry out a particular course of action when such action is relevant to the significant assumption.

One commenter asserted that compliance with the proposed requirements would not be possible when information described in factors does not exist and suggested adding the phrase "as applicable" to the requirement.

The new standard retains, as proposed, the requirement to take into account specific factors in evaluating the reasonableness of significant assumptions when the significant assumption is based on the company's intent and ability to carry out a

---

<sup>33</sup> See paragraphs .30–.31 of the new standard.

particular course of action. As in other PCAOB standards, the auditor takes factors into account to the extent they are relevant.

### Critical Accounting Estimates

With respect to critical accounting estimates, the proposed standard provided that the auditor should obtain an understanding of how management analyzed the sensitivity of its significant assumptions<sup>34</sup> to change, based on other reasonably likely outcomes that would have a material effect, and to take that understanding into account when evaluating the reasonableness of the significant assumptions and potential for management bias.

Some commenters expressed concern that the proposed requirement may place undue emphasis on, or create an inappropriate linkage with, a company's management discussion and analysis ("MD&A") disclosure. One commenter also suggested that the requirement may not always apply (if, for example, management were unable to perform a sensitivity analysis), and suggested clarification that the intent was for the auditor to understand whether, and if so, how, management analyzed the sensitivity of significant assumptions to change.

Some commenters suggested the proposed requirement be recast or aligned as a risk assessment procedure. For example, one commenter observed that the auditor's and management's judgment can differ with respect to critical accounting estimates. That commenter also stated that it was unclear whether the auditor should obtain this understanding if choosing a substantive-only testing strategy. One commenter suggested limiting the proposed requirement to critical accounting estimates with significant risks. Another commenter sought clarification that the requirement does not alter the auditor's responsibilities under AS 2710, *Other Information in Documents Containing Audited Financial Statements*.

The new standard retains the requirement substantially as proposed. In consideration of comments, the requirement was clarified to better align with the SEC's requirement for critical accounting estimates<sup>35</sup> by describing that the sensitivity of

---

<sup>34</sup> For the purposes of this requirement, significant assumptions identified by the company may not necessarily include all of those identified by the auditor as significant.

<sup>35</sup> See U.S. Securities and Exchange Commission, Financial Reporting Release No. 72, *Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations* (Dec. 19, 2003), 68 FR 75056 (Dec. 29, 2003), at Section V ("Critical Accounting Estimates") for management's responsibilities related to critical accounting estimates.

management's significant assumptions to change is based on other reasonably likely outcomes that would have a material effect on the company's financial condition or operating performance.

Under the new standard, the auditor is not expected to evaluate the company's compliance with the SEC's MD&A requirements, but rather to obtain an understanding of management's analysis of critical accounting estimates and to use this understanding in evaluating the reasonableness of the significant assumptions and potential for management bias in accordance with AS 2810.27. In the Board's view, the sensitivity analysis used by the company in developing the critical accounting estimates disclosures for the year under audit can provide important information about the significant assumptions underlying those estimates.

The Board considered recasting the requirement to obtain an understanding of management's analysis of its critical accounting estimates as a risk assessment procedure, as suggested by some commenters. However, this understanding is a necessary part of evaluating the reasonableness of significant assumptions and the potential for management bias in critical accounting estimates, which is a substantive procedure. Moreover, MD&A disclosures regarding critical accounting estimates might not be available until late in the audit, and therefore could affect the timing of related audit procedures.

The requirements in the new standard with respect to critical accounting estimates would not change the auditor's responsibilities under AS 2710 regarding other information in documents containing audited financial statements.

Although there may be significant overlap between estimates with significant risks identified by the auditor and the critical accounting estimates identified by management, the requirements for auditors under paragraph .18 of the new standard are not limited to estimates with significant risks as suggested by one commenter. Rather, the paragraph is consistent with the requirements to evaluate the reasonableness of assumptions in significant accounts and disclosures. The MD&A disclosures regarding critical accounting estimates can provide relevant information to inform the auditor's evaluation of the reasonableness of the significant assumptions and potential for management bias.

#### *Comparison with Standards of Other Standard Setters*

ISA 540 Revised provides that the auditor's procedures shall address (a) whether the significant assumptions are appropriate in the context of the applicable financial reporting framework, and, if applicable, changes from prior periods are appropriate; (b) whether judgments made in selecting the significant assumptions give rise to indicators of management bias; (c) whether the significant assumptions are consistent with each other and with those used in other accounting estimates, or with related

assumptions used in other areas of the entity's business activities, based on the auditor's knowledge obtained in the audit; and (d) when applicable, whether management has the intent to carry out specific courses of action and has the ability to do so.

ISA 540 Revised also requires the auditor to address whether, in the context of the applicable financial reporting framework, management has taken appropriate steps to (a) understand estimation uncertainty; and (b) address estimation uncertainty by selecting an appropriate point estimate and by developing related disclosures about estimation uncertainty. When, in the auditor's judgment based on the audit evidence obtained, management has not taken appropriate steps to understand or address estimation uncertainty, ISA 540 Revised requires the auditor to, among other things, request management to perform additional procedures to understand estimation uncertainty or to address it by reconsidering the selection of management's point estimate or considering providing additional disclosures relating to the estimation uncertainty, and evaluate management's response. If the auditor determines that management's response to the auditor's request does not sufficiently address estimation uncertainty, to the extent practicable, the auditor is required to develop an auditor's point estimate or range.

AU-C Section 540 provides that as part of testing how management made the accounting estimate, and the data on which it is based, the auditor shall evaluate whether the assumptions used by management are reasonable in light of the measurement objectives of the applicable financial reporting framework. Further, for accounting estimates that give rise to significant risks, AU-C Section 540 requires the auditor to evaluate: (a) how management considered alternative assumptions or outcomes and why it rejected them, or how management has otherwise addressed estimation uncertainty in making accounting estimates; (b) whether the significant assumptions used by management are reasonable; and (c) where relevant to the reasonableness of the significant assumptions used by management or the appropriate application of the applicable financial reporting framework, management's intent to carry out specific courses of action and its ability to do so.

AU-C Section 540 further provides that if, in the auditor's professional judgment, management has not addressed adequately the effects of estimation uncertainty on the accounting estimates that give rise to significant risks, the auditor should, if considered necessary, develop a range with which to evaluate the reasonableness of the accounting estimate.



5. *Company's Use of a Specialist or Third-Party Pricing Information*

*See paragraphs .19–.20*

The proposed standard would have required the auditor to also take into account the work of a company's specialist used in developing an accounting estimate when determining the evidence needed in testing the company's process. The proposed standard also referenced Appendix B of AS 1105<sup>36</sup> for testing and evaluating the work of a company's specialist when that work is used to support a conclusion regarding a relevant assertion, such as a relevant assertion related to an accounting estimate.

In addition, when third-party pricing information used by the company is significant to the valuation of financial instruments, the proposed standard required the auditor to evaluate whether the company has used that information appropriately and whether it provides sufficient appropriate evidence.

One commenter expressed concern that the proposed requirement would result in practical challenges as it would require the auditor to test the methods, data, and significant assumptions used or developed by a company specialist in the same manner that the auditor would if the accounting estimate was developed without the assistance of a company specialist. Another commenter advocated for closer alignment with the proposed requirements of Appendix B of AS 1105, citing, for example, requirements for testing the accuracy and completeness of company-produced data used by the specialists and evaluating the relevance and reliability of data obtained from external sources.

One commenter advocated for requiring auditors to consider whether company specialists possess specific credentials as part of auditing estimates under the proposed standard.

With respect to circumstances when third-party pricing information used by the company is significant to the valuation of financial instruments, one commenter requested additional guidance or criteria for evaluating whether the company has used

---

<sup>36</sup> In a companion proposal, the Board proposed to amend its standards regarding the auditor's use of the work of specialists, including specialists employed or engaged by the company ("company's specialist"). See *Proposed Amendments to Auditing Standards for the Auditor's Use of the Work of Specialists*, PCAOB Release No. 2017-003 ("Specialists Proposal"). The Specialists Proposal set forth these amendments in Appendix B of AS 1105.

third-party pricing information "appropriately" when assessing whether the information provides sufficient appropriate evidence.

In consideration of comments (including those received on the Specialists Proposal), the new standard requires the auditor to look to the requirements of Appendix A of AS 1105 that discuss the auditor's responsibilities for using the work of company specialists.<sup>37</sup> Appendix A of AS 1105 sets forth, among other things, procedures to be performed in evaluating the data, assumptions, and methods used by a company's specialist. Further, rather than addressing specific credentials of the specialist, Appendix A of AS 1105 requires the auditor to assess the knowledge, skill, and ability of the company's specialist.

The new standard retains as proposed the requirement to evaluate, when third-party pricing information used by the company is significant to the valuation of financial instruments, whether the company has used third-party pricing information appropriately and whether it provides sufficient appropriate evidence. The auditor's determination as to whether third-party pricing information was used appropriately by the company includes whether the information is in conformity with the applicable financial reporting framework.

#### *Comparison with Standards of Other Standard Setters*

ISA 540 Revised provides that when using the work of a management's expert, the requirements in paragraphs 21–29 of ISA 540 Revised<sup>38</sup> may assist the auditor in evaluating the appropriateness of the expert's work as audit evidence for a relevant assertion in accordance with paragraph 8(c) of ISA 500, *Audit Evidence*.<sup>39</sup> In evaluating

---

<sup>37</sup> The auditor's responsibilities with respect to using the work of a company's specialist are presented as Appendix A of AS 1105. See Specialists Release. The analogous proposed requirements were originally presented as Appendix B of AS 1105 in the Specialists Proposal.

<sup>38</sup> Paragraphs 21-29 of ISA 540 Revised describe the requirements for obtaining audit evidence from events occurring up to the date of the auditor's report; testing how management made the accounting estimate; and developing an auditor's point estimate or range.

<sup>39</sup> ISA 540 Revised provides that in obtaining audit evidence regarding the risks of material misstatement relating to accounting estimates, irrespective of the sources of information to be used as audit evidence, the auditor shall comply with the relevant requirements in ISA 500.

the work of the management's expert, the nature, timing, and extent of the further audit procedures are affected by the auditor's evaluation of the expert's competence, capabilities and objectivity, the auditor's understanding of the nature of the work performed by the expert, and the auditor's familiarity with the expert's field of expertise.

## **F. Developing an Independent Expectation of the Estimate**

*See paragraph .21*

The proposal sought to retain the general approach in the estimates standards for developing an independent expectation,<sup>40</sup> and more explicitly tailored the requirements to the different sources of the methods, data, and assumptions used by the auditor. Those sources include (1) independent assumptions and methods of the auditor, (2) data and assumptions obtained from a third party, and (3) the company's data, assumptions, or methods.

Additionally, while seeking to retain the requirement under the fair value standard for an auditor to understand management's assumptions to ensure that his or her independent estimate takes into consideration all significant variables,<sup>41</sup> the proposal expressly required the auditor to take into account the requirements of the applicable financial reporting framework.

The proposal also replaced certain terms used in the estimates standards to describe audit procedures with more neutral language (such as replacing "corroborate" with "compare") to reduce the risk of confirmation bias or anchoring bias when auditing accounting estimates.

Commenters on this topic were generally supportive of the proposed requirement for developing an independent expectation, indicating that the requirement is clear and sufficient. One commenter asked the Board to clarify situations where developing an independent expectation of the estimate would be appropriate. Another commenter indicated that using the phrase "developing an independent expectation" implies that the auditor would reach this expectation independently, without reference to management's methods, data, and assumptions, and recommended that the Board consider changing this phrasing to developing a "comparative estimate" or a "point estimate" to better reflect the procedures described.

---

<sup>40</sup> See AS 2501.12, AS 2502.40, and AS 2503.40.

<sup>41</sup> See AS 2502.40.



After consideration of these comments, the requirement is adopted substantially as proposed. The determination of when to use an approach or a combination of approaches is at the auditor's discretion based on the relevant facts and circumstances. In addition, the use of the phrase "developing an independent expectation of the estimate" is consistent with the concept in the estimates standards. The intention of the requirement is not to imply that the auditor could (or should) develop an expectation of the estimate without reference to the company's methods, data, and assumptions, but rather to more explicitly acknowledge that, in developing an independent expectation of the estimate, an auditor could use methods, data, and assumptions obtained from different sources.

Consistent with the proposal, the new standard tailors the requirements to develop an independent expectation to the different sources of the methods, data, and assumptions used by the auditor as set forth in the table below and discussed further in the sections that follow.

<b>Auditor's Independent Expectation Developed Using:</b>	<b>Auditor Responsibility Under the New Standard</b>
Assumptions and methods of the auditor	Have a reasonable basis for the assumptions and methods
Data and assumptions obtained from a third party	Evaluate the relevance and reliability of the data and assumptions
Company data, assumptions, or methods	Test and evaluate in the same manner as when testing the company's process

This approach provides more direction to auditors in light of the various ways in which auditors develop an independent expectation of accounting estimates.

The new standard also expressly prompts the auditor to take into account the requirements of the applicable financial reporting framework when developing an independent expectation. By taking into account the requirements of applicable financial reporting framework, the auditor might identify additional considerations relevant to the estimate that the company did not take into account in its own process for developing the estimate. As with the proposal, the new standard also uses more neutral terms, such as "evaluate" and "compare" to mitigate the risk of confirmation bias or anchoring bias when auditing accounting estimates. For example, the new standard requires the auditor to compare the auditor's independent expectation to the company's accounting

estimate instead of developing an independent fair value estimate "for corroborative purposes."<sup>42</sup>

1. *Independent Assumptions and Methods of the Auditor*

*See paragraph .22*

The proposal recognized that, when developing an independent expectation of an estimate, the auditor can independently derive assumptions or use a method that differs from the company's method. In those situations, the auditor should have a reasonable basis for his or her assumptions and methods used.

Commenters on this topic were generally supportive of the proposed requirement that the auditor have a reasonable basis for the assumptions and methods used when developing an independent expectation of the estimate. The requirement is adopted as proposed.

Under the new requirement, the auditor is required to have a reasonable basis for the assumptions and methods used to develop an independent expectation. Having a reasonable basis would reflect consideration of, among other things, the nature of the estimate; relevant requirements of the applicable financial reporting framework; the auditor's understanding of the company, its environment, and the company's process for developing the estimate; and other relevant audit evidence, regardless of whether the evidence corroborates or contradicts the company's assumptions.

2. *Data and Assumptions Obtained from a Third Party*

*See paragraph .23*

The proposal directed the auditor to the existing requirements in AS 1105 when evaluating the relevance and reliability of data or assumptions obtained from a third party. This approach is consistent with the requirements for evaluating data from external sources discussed in Section II.E.2 of this appendix.

The proposal also directed the auditor to comply with the requirements of proposed AS 1210, *Using the Work of an Auditor-Engaged Specialist*, when the third party is a specialist engaged by the auditor.<sup>43</sup> The proposal did not set forth specific requirements related to methods obtained from a third party that is not a specialist.

---

<sup>42</sup> See AS 2502.40.

<sup>43</sup> See paragraph .08 of the proposed standard.

One commenter expressed concern that the proposed requirements were too restrictive and somewhat impractical and that it may not be possible or necessary to obtain data and assumptions from a third party and to create assumptions independent of those of the company. The commenter recommended that the Board retain the extant direction allowing the auditor to use management's assumptions when developing independent expectations.

After consideration of the comment, the requirement is adopted as proposed. As described below in Section II.F.3 of this appendix, consistent with the estimates standards and the proposal, the new requirement continues to allow the use of company data, assumptions, or methods while also allowing the auditor to use other sources.<sup>44</sup>

Also consistent with the proposal, the new standard does not set forth specific requirements related to methods obtained from a third party, as the Board understands that auditors typically use either the company's methods or their own (which may include specialists' methods) in developing an independent expectation.

### *3. Use of Company Data, Assumptions, or Methods*

*See paragraph .24*

The proposal sought to retain the existing requirements for the auditor to test data from the company and evaluate the company's significant assumptions for reasonableness, when used by the auditor to develop an independent estimate.<sup>45</sup> The proposal also required the auditor to evaluate the company's method, if the auditor uses that method to develop an independent expectation. The proposal recognized that auditors may use a portion or a combination of data, assumptions, and method provided by the company in developing their expectations. If the company's data, assumptions, or methods are those of a company's specialist, the proposal also directed the auditor to comply with the requirements in proposed Appendix B of AS 1105 for using the work of a company specialist as audit evidence.

---

<sup>44</sup> Appendix A of AS 2501 (Revised) applies when the auditor develops an independent expectation of the fair value of financial instruments using pricing information from a third party. These requirements are discussed further in Section II.I.4 of this appendix.

<sup>45</sup> See AS 2502.40.

One commenter suggested that the Board clarify that when developing an independent expectation of an estimate, the auditor's testing of management's process is limited to those areas on which the auditor intends to rely for purposes of developing the expectation.

This provision is adopted substantially as proposed. Under the new standard, when an auditor chooses to develop an independent expectation using certain of the company's data, significant assumptions, or methods, the auditor is required to test such data or evaluate such assumptions or methods, using the corresponding procedures that apply when the auditor tests the company's process. In response to comments, the text was revised from the proposal to clarify the scope of the obligation to test. The new standard also includes a note referring the auditor to look to the requirements in Appendix A of AS 1105 in situations where the company's data, assumptions or methods were those of a company's specialist.<sup>46</sup>

#### *Comparison with Standards of Other Standard Setters*

When the auditor develops a point estimate or a range to evaluate management's point estimate and related disclosures about estimation uncertainty, ISA 540 Revised provides that the auditor's further audit procedures include procedures to evaluate whether the methods, assumptions or data used are appropriate in the context of the applicable financial reporting framework. ISA 540 Revised also provides that regardless of whether the auditor uses management's or the auditor's own methods, assumptions or data, further audit procedures be designed and performed to address the matters in paragraphs 23–25 of ISA 540 Revised.<sup>47</sup>

AU-C Section 540 provides that if the auditor uses assumptions or methods that differ from management's, the auditor shall obtain an understanding of management's assumptions or methods sufficient to establish that the auditor's point estimate or range takes into account relevant variables and to evaluate any significant differences from management's point estimate.

---

<sup>46</sup> See Specialists Release.

<sup>47</sup> Paragraphs 23–25 of ISA 540 Revised describe the auditor's further procedures for addressing methods, significant assumptions, and data.

4. *Developing an Independent Expectation as a Range*

*See paragraph .25*

The proposal provided that, if the auditor's independent expectation consisted of a range rather than a point estimate, the auditor should determine that the range was appropriate for identifying a misstatement of the company's accounting estimate and was supported by sufficient appropriate audit evidence.<sup>48</sup>

Some commenters asked for clarification or guidance on how to determine that a range is appropriate for identifying a misstatement. Some commenters stated that the proposed requirement implied a level of precision within a range that may not be feasible. Some commenters suggested expressly acknowledging situations where the range is greater than the materiality threshold by including, for example, language similar to IAASB's Exposure Draft, Proposed ISA 540 (Revised) ("ED 540"), paragraph A134.<sup>49</sup> One of these commenters argued that for certain highly judgmental estimates, additional audit work cannot reduce the size of the range below the materiality threshold, and that the proposed requirement could lead to excessive work. Another commenter suggested that the proposed standard did not sufficiently address estimation uncertainty, including what constitutes a reasonable range of estimation uncertainty and how auditors are to address and disclose such uncertainty.

After considering the comments, the requirement has been revised to clarify that, when establishing an independent expectation as a range, the auditor should determine that the range encompasses only reasonable outcomes, in conformity with applicable financial reporting framework, and is supported by sufficient appropriate evidence.

---

<sup>48</sup> The estimates standards provide for the development of an independent point estimate as one approach for testing accounting estimates, but these standards do not discuss developing an independent expectation as a range of estimates. AS 2810 provides for developing a range of possible estimates for purposes of the auditor's evaluation of misstatements relating to accounting estimates.

<sup>49</sup> ED 540, paragraph A134 stated that "In certain circumstances, the auditor's range for an accounting estimate may be multiples of materiality for the financial statements as a whole, particularly when materiality is based on operating results (for example, pre-tax income) and this measure is relatively small in relation to assets or other balance sheet measures. In these circumstances, the auditor's evaluation of the reasonableness of the disclosures about estimation uncertainty becomes increasingly important. Considerations such as those included in paragraphs A133, A144, and A145 may also be appropriate in these circumstances." Substantially similar guidance appears in paragraph A125 of ISA 540 Revised.

Also, a footnote has been added to paragraph .26 of the new standard reminding auditors that, under AS 2810.13, if a range of reasonable estimates is supported by sufficient appropriate evidence and the recorded estimate is outside of the range of reasonable estimates, the auditor should treat the difference between the recorded accounting estimate and the closest reasonable estimate as a misstatement.

The requirement that the range should be supported by sufficient appropriate evidence is consistent with the principle in the new standard that the auditor should have a reasonable basis for the data, assumptions, and methods used in developing an independent expectation. The sufficiency and appropriateness of the evidence needed will depend on the relevant circumstances, including the nature of the accounting estimate, the requirements of the applicable financial reporting framework, and the number and nature of significant assumptions and data used in the independent expectation.

Notably, the new standard does not restrict the size of the auditor's range to the level of materiality for the financial statements as a whole determined under AS 2105 ("financial statement materiality"). An appropriate range in accordance with paragraph .25 of the new standard might be very large, even exceeding financial statement materiality. For example, under certain market conditions, comparable transactions for some assets, even after appropriate adjustment, might indicate a wide range of fair value measurements. As another example, some accounting estimates are highly sensitive to one or more assumptions, such that a small change in an assumption can result in a large change in the value of the estimate. In those situations, the auditor's responsibility is to determine an appropriate range based on the criteria set forth in the new standard.

The Board considered the comments asking for a statement in the standard acknowledging that an independent expectation as a range could exceed the materiality level determined under AS 2105. However, such a statement was not added because it would not have changed the auditor's responsibility under the new standard.

Finally, with respect to estimation uncertainty, the new standard and related amendments acknowledge that estimates have estimation uncertainty, which affects the risks of material misstatement. Neither the Board nor auditors are responsible for placing limits on the range of estimation uncertainty. That uncertainty is a function of the estimate's measurement requirements under the applicable financial reporting framework, the economic phenomena affecting that estimate, and the fact that estimates involve assessments of future outcomes. Under the new standard, the auditor's responsibility is to consider estimation uncertainty in assessing risk and performing procedures in response to risk, which involves evaluating whether the accounting estimates are reasonable in the circumstances and in conformity with the applicable financial reporting framework, as well as evaluating management bias in accounting estimates, and its effect on the financial statements. These responsibilities



are better aligned with the auditor's overall responsibility for planning and performing financial audits.<sup>50</sup>

*Comparison with Standards of Other Standard Setters*

ISA 540 Revised provides that if the auditor develops an auditor's range, the auditor shall (a) determine that the range includes only amounts that are supported by sufficient appropriate audit evidence and have been evaluated by the auditor to be reasonable in the context of the measurement objectives and other requirements of the applicable financial reporting framework; and (b) design and perform further audit procedures to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement relating to the disclosures in the financial statements that describe the estimation uncertainty.

AU-C Section 540 provides that if the auditor concludes that it is appropriate to use a range, the auditor should narrow the range, based on audit evidence available, until all outcomes within the range are considered reasonable.

*5. Comparing the Auditor's Independent Expectation to the Company's Accounting Estimate*

*See paragraph .26*

The proposal set forth the requirement for the auditor to compare the auditor's independent expectation to the company's estimate and evaluate the differences in accordance with AS 2810.13.<sup>51</sup>

No comments were received on this topic. The requirement is adopted substantially as proposed, with an expanded footnote reminding auditors that under AS 2810.13, if a range of reasonable estimates is supported by sufficient appropriate evidence and the recorded estimate is outside of the range of reasonable estimates, the auditor should treat the difference between the recorded accounting estimate and the closest reasonable estimate as a misstatement.

---

<sup>50</sup> Auditors may also have disclosure and reporting responsibilities in relation to these matters. See AS 3101, *The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion*, and AS 1301, *Communications with Audit Committees*.

<sup>51</sup> See Section II.H of this appendix for additional discussion on evaluating audit results.

**G. Evaluating Audit Evidence from Events or Transactions Occurring After the Measurement Date**

*See paragraphs .27–.29*

The proposal noted that events and transactions that occur after the measurement date can provide relevant evidence to the extent they reflect conditions at the measurement date. The proposal provided that the auditor should evaluate whether the audit evidence from events or transactions occurring after the measurement date is sufficient, reliable, and relevant to the company's accounting estimate and whether the evidence supports or contradicts the company's estimate.

Commenters were generally supportive of the proposed requirements, indicating they were clear and sufficient. Two commenters requested additional clarity regarding the assessment of whether the audit evidence is sufficient, reliable, and relevant to the company's accounting estimate, one in the context of subsequent events and one more generally. Another commenter suggested including cautionary language with respect to fair value estimates indicating that fair value measurements are derived from information that would be known or knowable to a market participant at the measurement date.

The Board considered these comments and determined that the requirements in the proposal are sufficiently clear and is adopting the requirements as proposed.

The new standard, as with the proposal, requires the auditor to evaluate whether audit evidence from events or transactions occurring after the measurement date is sufficient, reliable, and relevant to the company's accounting estimate and whether the evidence supports or contradicts the company's estimate. This would include evaluating pertinent information that is known or knowable at the measurement date. For example, the sale of a bond shortly after the balance-sheet date (which in this case is also the measurement date) may provide relevant evidence regarding the company's fair value measurement of the bond as of the balance sheet date if the intervening market conditions remain the same. As another example, when a business combination occurred during the year, events occurring subsequent to the measurement date, such as the cash settlement of short-term receivables, may provide relevant evidence about the accounting estimate as of the measurement date if they reflect conditions at the measurement date. In those situations, the audit procedures would be focused on evaluating the relevance and reliability of the evidence provided by the subsequent event, including the extent to which the subsequent event reflects conditions existing at the measurement date.

Additionally, the new standard requires the auditor to take into account changes in the company's circumstances and other relevant conditions between the event or transaction date and the measurement date. It also notes that as the length of time from



the measurement date increases, the likelihood that events and conditions have changed during the intervening period also increases.

#### *Comparison with Standards of Other Standard Setters*

The corresponding ISA 540 Revised requirement provides that when the auditor's further audit procedures include obtaining audit evidence from events occurring up to the date of the auditor's report, the auditor shall evaluate whether such audit evidence is sufficient and appropriate to address the risks of material misstatement relating to the accounting estimate, taking into account that changes in circumstances and other relevant conditions between the event and the measurement date may affect the relevance of such audit evidence in the context of the applicable financial reporting framework.

AU-C Section 540 provides that the auditor should determine whether events occurring up to the date of the auditor's report provide audit evidence regarding the accounting estimate.

#### **H. Evaluating Audit Results**

*See paragraphs .30–.31*

The proposed standard incorporated existing requirements of AS 2810 for evaluating the results of audit procedures performed on accounting estimates, including evaluating bias in accounting estimates (both individually and in the aggregate).

One commenter noted that the requirements could be interpreted as a presumption that bias always exists in accounting estimates or a requirement to determine whether actual bias exists, and suggested that the standard include the word "potential" when referencing bias, similar to the requirements of AS 2810. Another commenter sought clarification as to whether the proposed standard required the auditor to evaluate bias in individual assumptions.

The new standard retains paragraphs .30 and .31 regarding evaluating audit results substantially as proposed. In consideration of comments, paragraphs .30 and .31 were revised to include a reference to potential bias, consistent with AS 2810.24–.27. The requirements in the new standard are intended to remind auditors of their existing responsibilities to evaluate potential bias in accounting estimates (both individually and in the aggregate) and its effect on the financial statements. For example, indicators of management bias may affect the assessed risk of material misstatement and the auditor's conclusions about whether accounting estimates are

reasonable in the circumstances. As discussed above, individual assumptions that are susceptible to manipulation or bias are ordinarily considered significant and evaluated for reasonableness.<sup>52</sup>

### *Comparison with Standards of Other Standard Setters*

ISA 540 Revised requires the auditor to evaluate whether judgments and decisions made by management in making the accounting estimates included in the financial statements, even if they are individually reasonable, are indicators of possible management bias. When indicators of possible management bias are identified, the auditor shall evaluate the implications for the audit. Where there is intention to mislead, management bias is fraudulent in nature.<sup>53</sup>

AU-C Section 540 requires the auditor to review the judgments and decisions made by management in the making of accounting estimates to identify whether indicators of possible management bias exist.

Both ISA 540 Revised and AU-C Section 540 provide that the auditor should determine whether the accounting estimates and related disclosures are reasonable in the context of the applicable financial reporting framework, or are misstated.

## **I. Appendix A—Special Topics**

### *1. Introduction*

Appendix A of the proposed standard set forth requirements for the auditor to perform specific procedures when auditing the fair value of financial instruments, focusing on the use of pricing information from third parties such as pricing services and brokers or dealers. The proposal also incorporated and built on topics discussed in the

---

<sup>52</sup> See discussion of identification of significant assumptions in Section II.E.3 of this appendix.

<sup>53</sup> ISA 540 Revised further requires the auditor to evaluate, based on the audit procedures performed and audit evidence obtained, whether (a) the assessments of the risks of material misstatement at the assertion level remain appropriate, including when indicators of possible management bias have been identified; (b) management's decisions relating to the recognition, measurement, presentation and disclosure of these accounting estimates in the financial statements are in accordance with the applicable financial reporting framework; and (c) sufficient appropriate audit evidence has been obtained.

derivatives standard, including certain procedures for auditing the valuation of derivatives and securities measured at fair value. The proposed requirements were informed by outreach, including the Pricing Sources Task Force, and publications of other standard setters.

Paragraph .A1 of Appendix A prompts the auditor to obtain an understanding of the nature of the financial instruments being valued in order to identify and assess risks of material misstatement related to the fair value of those instruments. Paragraph .A2 provides the general framework, specifically, the auditor's responsibility to determine whether the pricing information from a third party<sup>54</sup> provides sufficient appropriate evidence to respond to the risks of material misstatement.

Paragraphs .A3–.A9 provide more specific direction for cases where pricing information from pricing services and brokers or dealers are used. Paragraph .A10 sets forth factors for the auditor to take into account when obtaining an understanding of how unobservable inputs were determined and evaluating the reasonableness of unobservable inputs when the unobservable inputs are significant to the valuation of financial instruments.

A number of commenters expressed general support for the proposed Appendix A but commented on specific aspects of the proposed requirements. These comments are addressed below in a section-by-section discussion of the proposal and the new standard. In addition, there were two areas of comment that relate to several aspects of the proposed Appendix: (1) the extent to which audit procedures could be performed over groups or classes of financial instruments, rather than individual instruments; and (2) the role played by centralized groups within an accounting firm, such as a pricing desk, in performing procedures related to testing the fair value of financial instruments.

On the first area of comment, commenters asked for clarification on whether all of the required procedures in Appendix A were to be applied to financial instruments individually; expressing concerns that doing so would lead to excessive work. Some commenters suggested clarifying changes to the proposed Appendix, such as inserting "type of" or "types of" before the term "financial instrument" in various requirements in the appendix. One commenter suggested adding a note indicating that the procedures in paragraphs .A4–.A8 of the proposal were not required to be applied to each individual financial instrument. Another commenter suggested that auditors be allowed to

---

<sup>54</sup> Appendix A focuses primarily on pricing information from pricing services and brokers or dealers, but paragraph .A2 also covers pricing information obtained from other third-party sources, such as exchanges and publishers of exchange prices.

understand and evaluate the methods and inputs used by pricing services at the level of the asset class for financial instruments with lower estimation uncertainty.

The Board did not intend that all required procedures in Appendix A be applied to individual financial instruments in all cases. Rather, the Board intended that financial instruments with similar characteristics and risks of material misstatement could be grouped for purposes of applying substantive procedures. In some circumstances, however, it may not be appropriate to group financial instruments (for example, where financial instruments are dissimilar, or where the auditor does not have a reasonable basis upon which to base the grouping). As discussed in greater detail below, Appendix A of the new standard has been revised to clarify areas where it may be appropriate for procedures to be performed over groups of financial instruments rather than individual financial instruments.

On the second area, commenters asked for additional guidance about the role of centralized groups that the largest accounting firms often use to assist in performing procedures related to testing the fair value of financial instruments. The specific services performed and the nature and level of detail of information provided by centralized groups to engagement teams can vary. Some commenters suggested that the proposal further address how the requirements apply when a centralized pricing desk is used and raised specific issues regarding the use of centralized groups under the proposed requirements. One commenter advocated for more precise requirements about the degree to which procedures may be executed by a centralized group. The new standard does not prescribe the role or responsibilities of centralized pricing groups in audits, and Appendix A does not provide specific direction in that regard. Instead, the new standard allows engagement teams to continue seeking assistance from centralized groups when performing the procedures required under the new standard. This approach gives audit firms the flexibility to determine the most appropriate way to use their centralized pricing groups on an audit to satisfy the requirement of the new standard.

As under the proposal, centralized groups within the firm that assist engagement teams with evaluating the specific methods and assumptions related to a particular instrument, identifying and assessing risks of material misstatement, or evaluating differences between a company's price and a pricing service's price generally would be subject to the supervision requirements of AS 1201, *Supervision of the Audit Engagement*.<sup>55</sup>

---

<sup>55</sup> Additionally, centralized groups may periodically provide general information within the firm about a pricing service's controls and methodologies or general information on current market conditions for different types of securities. Such general

2. *Identifying and Assessing Risks of Material Misstatement Related to the Fair Value of Financial Instruments*

*See paragraph .A1*

Under the proposal, the auditor was to obtain an understanding of the nature of the financial instruments being valued to identify and assess the risks of material misstatement related to their fair value, taking into account specified matters.

Commenters were generally supportive of the proposed requirement. One commenter suggested that the auditor should be permitted to stratify financial instruments into groups as part of identifying and assessing risks of material misstatement, and suggested reframing one of the required procedures to refer to the type of financial instruments. Paragraph .A1 is not intended to require auditors to obtain an understanding of each financial instrument one-by-one. The language has been revised to refer to financial instruments (plural) or type of financial instruments to make this clear. The new standard allows auditors, where appropriate, to stratify financial instruments into groups with similar characteristics for purposes of performing procedures to evaluate pricing information for financial instruments. In those situations, the auditor's stratification is to be based on his or her understanding of the nature of the financial instruments obtained under paragraph .A1.

3. *Use of Pricing Information from Third Parties as Audit Evidence*

*See paragraphs .A2–.A3*

The proposal addressed pricing information from organizations that routinely provide uniform pricing information to users, generally on a subscription basis (pricing services), and brokers or dealers. The proposal provided that when the auditor uses pricing information from a third party to develop an independent expectation or tests pricing information provided by a third party used by management, the auditor should perform procedures to determine whether the pricing information provides sufficient appropriate audit evidence to respond to the risks of material misstatement.

---

information may inform engagement teams' risk assessments, to the extent that the information is reliable and relevant to their engagements. The activities of centralized groups to obtain and communicate such general information are different in nature from the engagement-specific services provided by the centralized groups, which are subject to supervision. Thus, it is important for firm quality control systems to have policies and procedures related to the accuracy of such general information from centralized groups.



Commenters on this topic were generally supportive of the proposed requirement. One commenter questioned whether the use of the word "tests" is appropriate in relation to pricing information provided by a third party used by management, because it might be inconsistent with other requirements in the proposed standard. The commenter requested clarification as to whether the use of the word "tests" in paragraph .A2 is intended to set out a different work effort than what AS 1105 would require to evaluate information from external sources.

Another commenter questioned whether receiving prices from a third-party service, in and of itself, amounts to using a service organization. The commenter claimed that, based solely on the criteria in paragraph .03 of AS 2601, *Consideration of an Entity's Use of a Service Organization*, without the context provided by AS 2503.11–.14, it is likely that third-party pricing services would often be considered service organizations, and that this outcome is not warranted given the relatively low risks involved. The same commenter asked about how paragraph .A3 would be applied to situations in which pricing services prepare pricing information upon client request, but follow uniform procedures that cause the preparer of the specific information to be unaware of the identity of the user, such that bias of the user would not be introduced.

Paragraphs .A2 and .A3 of the standard are being adopted as proposed, except for the revision discussed below. Under the new standard, as with the proposal, when the auditor uses pricing information from a third party to develop an independent expectation or evaluates pricing information provided by a third party that is used by the company, the auditor is required to perform procedures to determine whether the pricing information provides sufficient appropriate evidence to respond to the risks of material misstatement. This approach focuses auditors on assessing the relevance and reliability of the pricing information regardless of whether it is obtained by the company or the auditor, which should lead to more consistency in practice. The new standard also includes a reminder that under AS 2301.09, the auditor should design audit procedures to obtain more persuasive audit evidence the higher the auditor's assessment of risk. This added reminder reinforces the principle that the required procedures are scalable based on the assessed risks of material misstatement. In general, fair values of financial instruments based on trades of identical financial instruments in an active market have a lower risk of material misstatement than fair values derived from observable trades of similar financial instruments or unobservable inputs. Thus, the necessary audit response would also differ. For example, for exchange-traded securities in active markets, quoted prices obtained from a stock exchange may provide sufficient appropriate evidence.

After consideration of comments, the word "tests" has been replaced with "evaluates" to clarify that the requirement is consistent with the work effort ordinarily required by AS 1105 when evaluating information from external sources.

As is the case under existing PCAOB standards, a pricing service would continue to be a service organization if the services it provides to a subscriber are part of the subscriber's information system over financial reporting.<sup>56</sup> In those instances, the auditor would apply the requirements of the new standard when performing substantive testing and look to the requirements of AS 2601 regarding his or her responsibilities for understanding and evaluating controls of the pricing service. The Board does not intend that the new standard would change practice in this area, given that the criteria for being a service organization under PCAOB standards have not changed.

The applicability of either Appendix A or the requirements for using the work of specialists to pricing services depends on the nature of the service provided and the characteristics of the instrument being valued. Appendix A applies when the auditor uses uniform pricing information from pricing services that is routinely provided to their users, generally on a subscription basis. This pricing information may be generated at various points in time and is available to all subscribers including both companies and audit firms. In general, financial instruments covered by these services tend to be those with more direct or indirect observable inputs.

As with the proposal, the new standard includes a footnote providing that, when a pricing service is engaged by a company or auditor to individually develop a price for a specific financial instrument not routinely priced for subscribers, the requirements in Appendix A of AS 1105 (company-engaged specialists) or AS 1210 (auditor-engaged specialists) apply, depending on who engaged the pricing service.<sup>57</sup> In general, financial instruments covered by these services have few direct or indirect observable market inputs (for example, because of an issuer's default, a delisting, or a major change in liquidity of the related asset class).

#### *4. Using Pricing Information from Pricing Services*

*See paragraph .A4*

The proposal set forth a number of factors that affect the reliability of pricing information provided by a pricing service. These factors built on existing requirements for evaluating the reliability of audit evidence under AS 1105.

Some commenters suggested changes to or asked for clarification of the proposed factors for assessing the reliability of pricing information from pricing services.

---

<sup>56</sup> See AS 2601.03.

<sup>57</sup> See Specialists Release.

For example, some commenters asked for clarification or guidance regarding the required work effort to evaluate the pricing service, such as the nature and extent of procedures to evaluate the expertise and experience of the pricing service and whether the required procedures were to be applied separately for each financial instrument. Also, one commenter made specific suggestions regarding factors to be considered in evaluating the reliability and relevance of third-party pricing information. One commenter argued that the requirements of paragraphs .A4b, .A5c, and .A7 are unrealistic in some cases because auditors will not have access to the details of pricing service methodology, data, and assumptions. According to the commenter, requiring auditors to perform additional procedures in such cases without further guidance on procedures to be performed is unhelpful to the smaller companies who, in the commenter's view, are most likely to be unable to obtain an independent valuation, and to smaller audit firms without a pricing desk.

Additionally, some commenters requested guidance on how the auditor should determine that the pricing service, broker or dealer does not have a relationship with the company that could directly or indirectly or significantly influence the pricing service or broker or dealer. Other commenters suggested that auditors consider the results of their procedures regarding related parties under AS 2410 when considering the relationship of a pricing service or broker or dealer to the issuer. Other commenters suggested clarifying that a price challenge by management based on substantive information that causes the pricing service to change its price should not generally be deemed significant influence by management.

After consideration of the comments received, the new standard has been revised as follows:

- The requirements have been revised to clarify that the procedures in this paragraph are not required to be applied separately for each instrument (e.g., through the use of phrases such as "types of financial instruments").
- The new standard includes a note<sup>58</sup> clarifying that procedures performed under AS 2410 should be taken into account in determining whether the pricing service has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the pricing service as described in paragraph .A4c. The Board believes that pricing information from parties not considered to be related parties would ordinarily be more reliable than pricing information from sources determined to be related parties. The results of procedures

---

<sup>58</sup> See first note to paragraph .A4 in AS 2501 (Revised).



performed under AS 2410 would provide information about whether the pricing service is a related party and, if so, the nature of relationships between the company and the pricing service. The nature and extent of further procedures that might be needed depend on the relevant circumstances. For example, if the results of AS 2410 procedures identified relationships between the company and pricing service, the auditor would need to evaluate whether the relationships gave company management the ability to directly or indirectly control or significantly influence the pricing service. Also, additional procedures might be needed to ascertain whether the pricing service was economically dependent on the company's business, if the pricing service was a smaller entity with few subscribers.

- The new standard also includes a note<sup>59</sup> clarifying that the existence of a process by which subscribers can challenge a pricing service's pricing information does not, by itself, mean that company management has the ability to directly or indirectly control or significantly influence that pricing service. The Board agrees with commenters that the existence of such a price challenge process ordinarily would not, on its own, suggest significant influence over the pricing service.
- The new standard also includes a note<sup>60</sup> indicating that if the auditor performs procedures to assess the reliability of pricing information provided by a pricing service at an interim date, the auditor should evaluate whether the pricing service has changed its valuation process relative to the types of financial instruments being valued, and, if so, the effect of such changes on the pricing information provided at period end. The Board understands that firms may perform procedures at various times during the year with respect to the methodology used by pricing service. The note reminds auditors that if the pricing service changes its process, e.g., because of changes in market conditions, it is important for the auditor to evaluate the effect of such changes on the pricing information provided at period end to determine whether the pricing service continues to provide relevant evidence at that date.

As with the proposal, the new standard recognizes that pricing information that is routinely provided by a pricing service with experience and expertise relative to the type

---

<sup>59</sup> See second note to paragraph .A4 in AS 2501 (Revised).

<sup>60</sup> See third note to paragraph .A4 in AS 2501 (Revised).

of financial instrument being valued is generally more reliable than a price developed by a pricing service that has limited or no experience. The Board agrees with the commenters that the number and financial industry experience levels of evaluators employed by the pricing service, the extent of informational resources that the pricing service provides to assist users in understanding its data and evaluation methodologies, and the pricing service's evaluation quality controls and price challenge processes, among other things, are relevant considerations when evaluating experience and expertise. However, the absence of lengthy experience pricing a particular instrument does not necessarily mean that the pricing service is incapable of providing relevant audit evidence. The evaluation of experience and expertise should be based on the relevant facts and circumstances including the need to obtain more persuasive audit evidence as the assessed risk of material misstatement increases.

Similar to the proposal, the new standard contemplates that pricing services use different methodologies to determine fair value. The Board understands, based on observation from oversight activities and outreach that many pricing services provide information to their subscribers about their methodology, which can be assessed to determine whether that methodology is in conformity with the applicable financial reporting framework. Under the new standard, the evaluation of pricing service methodology can be performed for groups of financial instruments, provided that certain conditions set forth in the Appendix are met. When an auditor is unable to obtain information about the methodology used by the pricing service to determine fair values of the types of financial instruments being valued, additional or alternative procedures to obtain the necessary evidence may include, for example, obtaining and evaluating pricing information from a different pricing source, obtaining evidence about the inputs used from public data about similar trades, or developing an independent expectation.

The new standard, as with the proposal, also provides that the procedures in Appendix A apply to pricing information obtained from pricing sources used by the company in their estimation process as well as from those obtained by the auditor for the purpose of developing an independent expectation.<sup>61</sup> This approach focuses on assessing the relevance and reliability of the pricing information obtained, rather than of

---

<sup>61</sup> An auditor's ability to use sampling methodologies and pricing information obtained from pricing sources used by the company may differ under other requirements, such as interpretive releases issued by the SEC. See, e.g., SEC, *Codification of Financial Reporting Policies Section 404.03, Accounting, Valuation and Disclosure of Investment Securities*, Accounting Series Release No. 118 (Dec. 23, 1970), which provides requirements for audits of SEC-registered investment companies.

the third party itself, and is better aligned with the assessed risks of material misstatement.

*See paragraph .A5*

The proposal set forth certain factors that are important to the auditor's assessment of the relevance of pricing information provided by a pricing service.

Two commenters suggested that the description of the factors seemed to indicate that auditors need to understand how each financial instrument in the portfolio is valued individually, whereas in their view, auditors should be able to assess these factors based on the asset class and other characteristics.

The Board did not intend to require auditors to assess the factors set forth in this paragraph individually for each financial instrument in all cases, but rather, where applicable, to allow auditors to consider the factors for groups of financial instruments with similar characteristics and risks of material misstatement. Accordingly, the new standard has been revised to use the plural term "financial instruments" to clarify where a broader application is intended.

Like the proposal, the new standard provides direction on evaluating the relevance of pricing information provided by a pricing service, building on the requirements related to the relevance of audit evidence under AS 1105.<sup>62</sup> Under the new standard, the procedures to be performed generally depend on whether there is available information about trades in the same or similar securities.

*Fair values based on quoted prices in active markets for identical financial instruments.* The relevance of pricing information depends on the extent to which the information reflects market data as of the measurement date. Recent trades of identical financial instruments generally provide relevant audit evidence.

*Fair values based on transactions of similar financial instruments.* Only a fraction of the population of financial instruments is traded actively. For many financial instruments, the available audit evidence consists of market data for trades of similar financial instruments or trades of the identical instruments in an inactive market. This is the context in which the Board thinks it is most likely that procedures would be performed for groups of financial instruments of a similar nature (taking into account the matters in paragraph .A1) that are priced by the pricing service using the same process.

---

<sup>62</sup>

See AS 1105.07.

How a pricing service identifies and considers transactions comparable to the financial instrument being valued affects the relevance of the pricing information provided as audit evidence. When fair values are based on transactions of similar instruments, the new standard requires the auditor to perform additional audit procedures to evaluate the process used by the pricing service, including evaluating how transactions are identified, considered comparable, and used to value the types of financial instruments selected for testing, as discussed below.

*No recent transactions have occurred for the same or similar financial instruments.* When no recent transactions have occurred for either the financial instrument being valued or similar financial instruments, pricing services may develop prices using broker quotes or models. How a pricing service develops prices for these financial instruments, including whether the inputs used represent the assumptions that market participants would use when pricing the financial instruments, affects the relevance of the pricing information provided as audit evidence.

When pricing information from a pricing service indicates no recent trades for the financial instrument being valued or similar instruments, the new standard requires the auditor to perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of the observable and unobservable inputs used by the pricing service, as discussed below. These types of financial instruments would generally be valued individually.

*See paragraph .A6*

The proposal provided that when the fair values are based on transactions of similar financial instruments, the auditor should perform additional audit procedures to evaluate the process used by the pricing service.

Some commenters requested clarification or guidance on the additional procedures to be performed when evaluating the process used by a pricing service, and guidance for situations in which the auditor is unable to perform the procedures. Another commenter asked for clarification regarding firm-level due diligence over pricing services, arguing that the standard as proposed would preclude the use of centralized pricing desks or firm-level due diligence procedures in evaluating a pricing service's process.

After consideration of comments received, this paragraph in the new standard has been revised in two respects. First, a phrase was added to clarify that the additional procedures to be performed relate to how transactions of similar instruments are identified, considered comparable, and used to value the types of financial instruments selected for testing.

Second, in light of previously discussed comments requesting clarification about the unit of testing, a note was added to paragraph .A6 of the new standard providing that when a pricing service uses the same process to price a group of financial instruments, the audit procedures to evaluate the process can be performed for those financial instruments as a group, rather than for each instrument individually, if the financial instruments are similar in nature (taking into account the matters in paragraph .A1 of the new standard). The note was included with this paragraph because, as previously noted, these are the situations in which the Board believes auditors would be most likely to perform procedures at a group level. To address the use of group-level procedures in other contexts, a footnote was added to the note indicating that other procedures required by the Appendix may also be performed at a group level, provided that the conditions described in the note are met.

The new standard does not prescribe detailed procedures because the necessary audit procedures will vary in nature and extent depending on a number of factors, including the relevant risks and the process used by the pricing service (e.g., matrix pricing, algorithm, or cash flow projections). For example, evaluating the reasonableness of a fair value based on the estimated cash flows from a pool of securitized mortgage loans would differ from evaluating an input derived from adjusted observable data. Procedures may include for example, evaluating how comparable transactions are selected and monitored or how matrix pricing is developed.

Additionally, the new standard does not prescribe who is to perform the procedures with respect to pricing services. It is the Board's understanding of current practice that, in large firms, firm-level due diligence over pricing services is typically performed centrally by a national-level pricing desk and not undertaken by each engagement team. The determination of whether the due diligence procedures over a pricing service should be performed by an engagement team or by the national office centralized group is at the discretion of the auditor, based on the relevant facts and circumstances. The Board does not intend that the new standard would give rise to a change in current practice in this area.

*See paragraph .A7*

The proposal provided that when there are no recent transactions either for the financial instrument being valued or for similar financial instruments, the auditor should perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of observable and unobservable inputs used by the pricing service.

One commenter requested clarification or guidance on the additional procedures to be performed in circumstances when no recent transactions have occurred for either the financial instrument or similar financial instruments, expressing concern about smaller firms' ability to comply with the proposed requirement.



The requirement has been adopted substantially as proposed. Given the diverse nature of financial instruments that fall into this category, prescribing detailed procedures is impractical. The necessary audit procedures to evaluate the valuation methods and inputs will vary based on the relevant risks, type of inputs, and valuation methods involved.

Additionally, when an auditor is unable to obtain information from a pricing service about the method or inputs used to develop the fair value of a financial instrument when no recent transactions have occurred for either the financial instrument being valued or for similar financial instruments, the auditor is required under the new standard to perform additional procedures, such as obtaining and evaluating pricing information from a different pricing source, obtaining evidence about the inputs used from public data about similar trades, or developing an independent expectation.

*5. Using Pricing Information from Multiple Pricing Services*

*See paragraph .A8*

The proposal provided direction for using pricing information from multiple pricing services to assess the valuation of financial instruments. Specifically, the proposal set forth certain conditions under which less information is needed about the particular methods and inputs used by the individual pricing services when pricing information is obtained from multiple pricing services. In general, these factors relate to situations in which there is reasonably consistent pricing information available from several sources with ample observable inputs.

Commenters on this paragraph generally supported the underlying principle that less evidence may be needed when pricing information is obtained from multiple pricing services. Some commenters questioned one of the conditions set forth in the proposal, related to the methods used to value the financial instruments. Those commenters suggested that requiring the auditor to understand the valuation methods used was inconsistent with the concept of obtaining less information. One commenter suggested that sufficient appropriate audit evidence could be obtained solely on the basis of two of the conditions: that the instruments are routinely priced by several pricing services, and the prices obtained are reasonably consistent. Some commenters asked for clarification on whether the conditions can be applied on a group basis or would be required to be applied to individual financial instruments, expressing concern that the latter approach would lead to excessive work.

Other commenters sought clarification or offered suggestions regarding the wording of some of the conditions set forth in the proposal. One commenter suggested consistently using the terms "multiple" and "several" in relation to pricing services. Another commenter asked for clarification of the meaning of the phrase "reasonably consistent between or among the pricing services from which pricing information is

obtained," specifically, whether the phrase referred to consistent over a period of time or as of a point in time.

Another commenter suggested a different set of conditions for when less evidence may be needed. In that commenter's view, the auditor would have obtained sufficient appropriate audit evidence with respect to the valuation of a financial instrument if: (i) the auditor assesses the financial instrument to have "lower estimation uncertainty" (e.g., based on the asset class and other characteristics of the financial instrument), (ii) the auditor obtains multiple prices from pricing services for the financial instrument, (iii) those pricing services routinely price that type of financial instrument, (iv) the prices obtained are reasonably consistent, and (v) the auditor has obtained an understanding of the pricing services' methodologies at an asset class level of the financial instrument.

Another commenter suggested that the standard should require taking the average of a reasonable number of available prices, excluding outliers, and that procedures such as those outlined in paragraph .A4 should be performed for at least one pricing source. The same commenter also requested clarification of whether and how pricing sources like Google and Yahoo Finance may be used.

After consideration of the comments received, paragraph .A8 in the new standard has been revised to remove the reference to valuation methods and to make other wording changes that, along with the footnote to paragraph .A6, clarify that procedures under this paragraph can be performed at a group level, provided that the conditions described in the note to paragraph .A6 are met.

Regarding the comment on usage of the terms "multiple" and "several" in Paragraph .A8, the term "multiple" refers to more than one pricing service. The term "several" is used to clarify that, under the condition in paragraph .A8, pricing information is to be obtained from more than two pricing services, all of which routinely price the instruments.

The new standard includes the condition that prices obtained are reasonably consistent across pricing services (as of a relevant point in time), taking into account the nature and characteristics of the financial instruments being valued and market conditions. For example, the range of prices that would be reasonably consistent would be narrower for a type of financial instrument with a number of observable market inputs, such as recent trades of identical or substantially similar instruments, than for a type of instrument with relatively few observable market inputs.

The suggestion to compute averages of prices from different sources was not included in the new standard because averages could obscure a wide range of price variation and no consideration would be given to whether certain prices are more indicative of the fair value of the instrument than others. The Board considered the other

factors suggested by commenters and determined that those factors generally were similar in nature to requirements in Appendix A. For example, the suggested factor based on lower estimation uncertainty is, in the Board's view, subsumed in the other listed factors.

Web sites that publish, for the general public, prices for exchange-traded securities in active markets are not pricing services as described in the new standard, and the auditor's responsibility for information from those sources is set forth in paragraph .A2 of the new standard. Evaluating whether securities prices from these web sites provide sufficient appropriate evidence includes evaluating whether the web sites obtain the prices directly from original sources (e.g., stock exchanges).

*6. Using Pricing Information from a Broker or Dealer*

*See paragraph .A9*

The proposal set forth certain factors that affect the relevance and reliability of the evidence provided by a quote from a broker or dealer. In addition, the proposal included an amendment to AS 1105.08 to more broadly address restrictions, limitations, and disclaimers in audit evidence from third parties.

Some commenters asked for guidance on the proposed requirement to evaluate the relationship of the source of the pricing information with the company, including the factors to be evaluated. Another commenter suggested that the standard state that the list of factors affecting relevance and reliability is not all inclusive, although the commenter did not suggest additional factors to be included. One commenter asserted that the proposal would result in a significant change in practice, and suggested that the Board should consider whether there were lower risk circumstances for which a broker quote may be sufficient appropriate audit evidence without meeting all criteria. Another commenter noted that the first sentence of the paragraph reads as though it applies only when the auditor tests the company's price based on a quote from a broker or dealer. The commenter suggested that the proposal should clarify whether the requirement would also apply when the auditor develops an independent expectation using a broker quote.

The new standard has been revised to include a note providing that auditors should take into account the results of the procedures performed under AS 2410, *Related Parties*, when determining whether the broker or dealer has a relationship with the company by which company management has the ability to directly or indirectly control or significantly influence the broker or dealer. Otherwise, the requirements in the new standard have been adopted substantially as proposed. The Board believes that the factors set forth in the standard provide sufficient direction to the auditor to evaluate the relevance and reliability of the evidence provided by the quote, in order to determine



whether the quote provides sufficient appropriate evidence in light of the risks of material misstatement.

The requirements in the proposal were framed in terms of when the company's fair value measurement is based on a quote from a broker or dealer because the Board understands that this is the situation typically encountered in practice. However, the factors set forth in the standard relate to the relevance and reliability of audit evidence from those quotes, and thus are equally applicable to those less common situations when the auditor uses a broker quote to develop an independent expectation. The requirement in the new standard has been revised to remove the reference to the "company's" measurement.

If the broker quote does not provide sufficient appropriate evidence, the auditor would be required to perform procedures to obtain relevant and reliable pricing information from another source (for example, obtaining a quote from a different broker or dealer, obtaining pricing information from a pricing service, or developing an independent expectation).

#### *7. Unobservable Inputs*

*See paragraph .A10*

The proposal set forth a requirement for the auditor to obtain an understanding of how unobservable inputs were determined and to evaluate the reasonableness of those inputs. This understanding would involve, among other things, taking into account the assumptions that market participants would use when pricing the financial instrument, including assumptions about risk, and how the company determined its fair value measurement, including whether it appropriately considered available information. For example, if management adjusts interest rates, credit spread, or yield curves used to develop a fair value measurement, the auditor would be required to evaluate whether the adjustments reflect the assumptions that market participants would ordinarily use when pricing that type of financial instrument.

The two commenters on this paragraph expressed opposing views. One commenter supported the requirement while the other commenter suggested deleting the paragraph.

The requirement is adopted as proposed. By providing factors that the auditor takes into account, the new standard provides additional direction in an area that is inherently subjective and judgmental in nature and therefore poses a higher risk of material misstatement.

### **III. Amendments to PCAOB Auditing Standards**

The Board is adopting the amendments contained in Appendix 2 to several of its existing auditing standards to conform to the new standard. Significant amendments are described below.<sup>63</sup>

#### **Amendments to AS 1015, *Due Professional Care in the Performance of Work***

The proposed amendments to AS 1015.11 included two changes to the discussion of reasonable assurance when auditing accounting estimates (1) clarifying that many (although not all) accounting presentations contain accounting estimates, the measurement of which is inherently uncertain and depends on the outcome of future events; and (2) providing that, in auditing accounting estimates, the auditor considers information through the date of the auditor's report, which under PCAOB standards is a date no earlier than the date on which the auditor has obtained sufficient appropriate evidence.<sup>64</sup>

One commenter advocated for including language in AS 1015 that explains inherent limitations that an auditor may face with regard to identifying and evaluating management bias in accounting estimates. In this commenter's view, financial reporting frameworks do not distinguish between reasonable judgment latitude, subconscious management bias, and willful biased manipulation.

The amendments are adopted substantially as proposed. The Board acknowledges that various circumstances can give rise to management bias and that, given the subjective assumptions and uncertainty inherent in many estimates, bias cannot be eliminated entirely. The new standard, as well as other PCAOB standards, address the auditor's responsibilities for evaluating potential management bias in accounting estimates and its effect on financial statements.

#### **Amendments to AS 1105, *Audit Evidence***

The proposed amendment to AS 1105.08 would require the auditor to evaluate the effect of any restrictions, limitations, or disclaimers imposed by a third party on the reliability of evidence provided by that party.

---

<sup>63</sup> The discussion below excludes conforming amendments that make reference to the new standard.

<sup>64</sup> See paragraph .01 of AS 3110, *Dating of the Independent Auditor's Report*.

A few commenters sought guidance on how to apply the requirement, including how the auditor would determine if the evidence was sufficiently reliable.

The amendment to AS 1105.08 is being adopted as proposed. Third-party information often contains restrictions, limitations, or disclaimers as to the use of such information and its conformity with the applicable financial reporting framework. The nature of the restriction, limitation, or disclaimer and how the information provided is being used would inform the auditor's assessment of whether the evidence provided by the third-party information is sufficiently reliable, or whether additional procedures need to be performed (and, if so, the nature and extent of such procedures). For example, language in a business valuation disclaiming responsibility for company-provided data used to prepare the valuation may not affect the reliability of that valuation as long as the auditor performs audit procedures to test company-provided data used.

Appendix B, *Audit Evidence Regarding Valuation of Investments Based on Investee Financial Results*

The proposal set forth amendments to add Appendix A, *Audit Evidence Regarding Valuation of Investments Based on Investee Financial Condition or Operating Results*, to AS 1105. The proposed amendments would have retained and updated certain requirements from the derivatives standard for situations in which the valuation of an investment selected for testing is based on the investee's financial condition or operating results, including certain investments accounted for by the equity method and investments accounted for by the cost method for which there is a risk of material misstatement regarding impairment.

Commenters expressed concerns that the updated requirements in the proposal were written in a manner that was overly prescriptive, impracticable, burdensome, or inconsistent with the application of a risk-based approach. For example, commenters asserted that certain procedures involving interaction with investee management or the investee auditor were not practicable because the investor company's auditor might not have access to those parties. Commenters also sought clarification on the intent and application of several procedures set forth in the appendix.

After consideration of comments, the Board has decided to retain the existing requirements from the derivatives standard, with only limited conforming changes. The requirements are set forth as Appendix B, *Audit Evidence Regarding Valuation of Investments Based on Investee Financial Results*, to AS 1105. The intent of updating the requirements from the derivatives standard was to better align the required procedures with the risk assessment standards, not to substantively change audit practice in this area. Retaining the language of the existing requirements is consistent with the intention not to change audit practice. The requirements of the risk assessment standards continue to be applicable to investments audited under Appendix B of AS 1105.

**Amendment to AS 1205, Part of the Audit Performed by Other Independent Auditors**

AS 1205.14 discusses the applicability of that standard to situations where the company being audited has an investment accounted for under the equity method or the cost method and the investee is audited by another auditor. In consideration of comments on the appendix to AS 1105 discussed above, the Board is also amending AS 1205 to help auditors determine the appropriate standard to apply in those situations. Specifically, the amendment provides that the auditor should look to the requirements of Appendix B of AS 1105 for situations in which the valuation of an investment selected for testing is based on the investee's financial results and neither AS 1201 nor AS 1205 applies. The amendment clarifies that Appendix B of AS 1105 applies when AS 1205, by its terms, does not apply and the investee auditor is not supervised under AS 1201.

**Amendments to AS 2110, Identifying and Assessing Risks of Material Misstatement**

The proposal included a number of amendments to AS 2110 related to:

- Obtaining an understanding of the processes used to develop accounting estimates and evaluating the use of service organizations that are part of a company's information system;
- Discussing how the financial statements could be manipulated through management bias; and
- Assessing additional risk factors specifically for accounts and disclosures involving accounting estimates.

One commenter suggested that requirements related to identifying and assessing risks of material misstatements in accounting estimates should be in one standard (i.e., new standard) rather than amending the various risk assessment standards. In contrast, another commenter expressed support for amending other PCAOB standards as a result of a new standard on accounting estimates.

The amendments to AS 2110, described in more detail below, are being adopted substantially as proposed.

**Information and Communication**

The proposed amendment to AS 2110.28 would require the auditor, as part of obtaining an understanding of a company's information system and related business processes, to obtain an understanding of the processes used to develop accounting

estimates, including (1) the methods used, which may include models; (2) the data and assumptions used, including the source from which they are derived; and (3) the extent to which the company uses specialists or other third parties, including the nature of the service provided and the extent to which the third parties use company data and assumptions.

The proposed amendment also included a note emphasizing that the requirements in AS 2601 with respect to the auditor's responsibilities for obtaining an understanding of controls at a service organization would apply when the company uses a service organization that is part of the company's information system over financial reporting. In addition, for critical accounting estimates, the proposed amendment referenced a requirement in the proposed standard for the auditor to obtain an understanding of how management analyzed the sensitivity of its significant assumptions to change, based on other reasonably likely outcomes that would have a material effect.

One commenter suggested a requirement for the auditor to obtain an understanding of how management identifies and addresses the risk of management bias. Another commenter suggested adding language similar to the existing note on evaluation of risk and controls within the information system to clarify that a service organization is part of the evaluation, not a separate consideration.

In light of related amendments to AS 2110 in the Board's rulemaking on the auditor's use of specialists, the amendment to AS 2110.28 was revised to clarify that the auditor's understanding of the processes used to develop accounting estimates includes the extent to which the company uses third parties other than specialists.<sup>65</sup>

The amendment emphasizes elements of assessing the risks of material misstatement that are specifically relevant to accounting estimates, recognizing that the methods, data and assumptions used by the company in its process to develop accounting estimates, including how they are selected and applied, drive the risk associated with the estimate. In addition, as part of obtaining an understanding the information system, the amendment reminds the auditor to consider whether the requirements of AS 2601 are applicable to the third party used by the company in developing an accounting estimate.

A separate requirement for the auditor to obtain an understanding of how management identifies and addresses the risk of management bias was not necessary

---

<sup>65</sup> See the Specialists Release for a discussion of auditors' responsibilities with respect to specialists.



as the new standard requires the auditor to evaluate management bias and its effect on financial statements as part of responding to risks of material misstatements in accounting estimates.

#### *Comparison with Standards of Other Standard Setters*

Similar to this amendment, ISA 540 Revised sets forth requirements to obtain an understanding of how management identifies the relevant methods, assumptions or sources of data, and the need for changes in them, that are appropriate in the context of the applicable financial reporting framework, including how management (a) selects or designs, and applies, the methods used, including the use of models; (b) selects the assumptions to be used, including consideration of alternatives, and identifies significant assumptions; and (c) selects the data to be used.

#### Discussion of the Potential for Material Misstatement Due to Fraud

AS 2110.52 requires the key engagement team members to discuss the potential for material misstatement due to fraud. The proposed amendment to AS 2110.52 would require the auditor to include, as part of this discussion, how the financial statements could be manipulated through management bias in accounting estimates in significant accounts and disclosures.

Commenters that addressed this topic were generally supportive of the amendment but provided some suggestions for refinements. One commenter suggested that the standard include discussion of different types of bias. Another commenter also indicated that, in their view, the consideration of bias may be better placed in paragraphs .49–.51 of AS 2110 as part of the overall discussion of the susceptibility of the financial statements to material misstatement. Further, in one commenter's view, the requirement implied that the auditor should seek out bias in every accounting estimate. This commenter suggested the language be revised to focus on estimates that are "more susceptible" to material misstatement from management bias or where management bias is "more likely to" result in a material misstatement.

The amendment to AS 2110.52 is adopted as proposed. Contrary to the view of one commenter, the requirement does not direct the auditor to seek out bias in each estimate. Rather, by including the potential for management bias (regardless of type) as part of the engagement team's overall brainstorming discussion, the requirement focuses the auditor's attention on a risk that is particularly relevant to accounting estimates in significant accounts and disclosures. In addition, including the requirement as part of paragraph .52 provides additional context as to the nature of the discussion about susceptibility of the company's financial statements to material misstatement due to fraud.

Identifying Significant Accounts and Disclosures and Their Relevant Assertions

AS 2110.60 provides risk factors relevant to the identification of significant accounts and disclosures and their relevant assertions. The proposed amendment to AS 2110.60 provided the auditor with additional risk factors that are relevant to identifying significant accounts and disclosures involving accounting estimates, including (1) the degree of uncertainty associated with the future occurrence or outcome of events and conditions underlying the assumptions; (2) the complexity of the process for developing the accounting estimate; (3) the number and complexity of significant assumptions associated with the process; (4) the degree of subjectivity associated with significant assumptions (for example, because of significant changes in the related events and conditions or a lack of available observable inputs); and (5) if forecasts are important to the estimate, the length of the forecast period and degree of uncertainty regarding trends affecting the forecast.

One commenter suggested including additional factors such as (1) the extent to which the process involves specialized skills or knowledge; (2) the complexity of the data used for developing the accounting estimate, including the difficulty, if any, in obtaining relevant and reliable data and maintaining the integrity of the data; and (3) the potential for management bias. Another commenter questioned whether the Board intends management bias to extend beyond a fraud risk, suggesting the requirement highlight management bias as a specific risk factor. A different commenter asked for clarification on how instances of high measurement uncertainty are contemplated.

One commenter sought clarity on whether the above risk factors are intended to be considered when identifying and assessing the risks of material misstatement related to accounting estimates (in addition to identifying significant accounts and disclosures).

The amendment to AS 2110.60 is adopted as proposed. The additional risk factors included in the amendment describe those characteristics and conditions that are associated with accounting estimates and that can affect the auditor's determination of the likely sources of potential misstatement. While the factors assist the auditor in identifying significant accounts and disclosures and their relevant assertions, these factors also prompt auditors to appropriately assess the associated risks in the related accounts and disclosures and develop appropriate audit responses. As discussed above, AS 2810 requires the auditor to evaluate management bias and its effect on the financial statements. In circumstances where management bias gives rise to a fraud risk, the auditor looks to the requirements of AS 2301 to respond to those risks.

The factors were not expanded to include extent of specialized skills used, potential for management bias, or complexity of the data used, as suggested by one commenter. These characteristics are already captured within the factors presented in the amendment or elsewhere in the risk assessment standards. For example, assessing the complexity of the process for developing an accounting estimate would necessarily

include understanding the data and assumptions that are used within the process. Further, as discussed above, the new standard and related amendments recognize that the degree of uncertainty associated with some estimates affect the assessed risks and direct auditors to plan and perform audit procedures to respond to those risks.

**Amendments to AS 2301, *The Auditor's Responses to the Risks of Material Misstatement***

The proposal included a note to AS 2301.36 emphasizing that performing substantive procedures for the relevant assertions of significant accounts and disclosures involves testing whether the significant accounts and disclosures are in conformity with the applicable financial reporting framework.

Commenters did not express concerns with the proposed amendment. However, some commenters called for additional guidance on identifying and testing relevant controls over accounting estimates. For example, one commenter suggested guidance related to auditor consideration of management controls over selection and supervision of a company specialist. Another commenter suggested additional guidance on identification and testing of relevant controls, and identification and response to risks of material misstatement due to fraud in relation to auditing estimates. This commenter expressed the view that testing the operating effectiveness of controls, including controls over complex models or methods used, can be critical in auditing accounting estimates and, in some circumstances, may be required (e.g., in situations in which substantive procedures alone do not provide sufficient appropriate evidence).

The auditor's responsibilities for testing controls are addressed in AS 2110, AS 2301, and AS 2201, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements*. These requirements would apply to controls over accounting estimates. Nonetheless, in the Board's view, providing additional direction on the need to test controls related to accounting estimates could help promote an appropriate audit response in cases where only a financial statement audit is performed. Accordingly, after consideration of comments, the Board is amending AS 2301.17 to include a note reminding auditors that for certain accounting estimates involving complex models or processes, it might be impossible to design effective substantive tests that, by themselves, would provide sufficient appropriate evidence regarding relevant assertions.

The amendment to AS 2301.36 is also adopted as proposed.

**Amendments to AS 2401, *Consideration of Fraud in a Financial Statement Audit***

To better align requirements with the scope of the proposed standard, the proposed amendment to AS 2401.64 would have deleted reference to "significant accounting estimates reflected in the financial statements" and clarified that, when an



auditor performs a retrospective review, the review should be performed for accounting estimates in significant accounts and disclosures. The proposed amendment would also have clarified that the retrospective review involves a comparison of the prior year's estimates to actual results, if any, to determine whether management's judgments and assumptions relating to the estimates indicate a possible bias on the part of management.

Some commenters expressed concern that the proposed amendment would expand the population of accounting estimates subject to retrospective review, resulting in excessive work. Other commenters suggested either including the requirement to perform a retrospective review within the proposed standard, or providing a clearer linkage between the proposed standard and the requirements for retrospective review in AS 2401. One commenter suggested a requirement to evaluate the accuracy of management's prior estimates going back a minimum of three years.

After consideration of comments, the amendment to AS 2401.64 was revised to further clarify that the accounting estimates selected for testing should be those for which there is an assessed fraud risk. The scope of the retrospective review, as amended, is better aligned with the new standard and focuses the auditor on accounting estimates already identified through the risk assessment process as being susceptible to material misstatement due to fraud.

A separate requirement for performing a retrospective review is not necessary in the new standard as the requirement in AS 2401 would achieve the same objective. Further, for some estimates, the outcome of the estimate may not be known within a reporting period to facilitate such a review. Similarly, requiring a review over multi-year period would not be feasible for some estimates. Obtaining an understanding of the company's process for developing an estimate would necessarily provide information about the company's ability to make the estimate. In addition, the new standard requires the auditor to evaluate whether the company has a reasonable basis for significant assumptions used in accounting estimates.

#### *Comparison with Standards of Other Standard Setters*

ISA 540 Revised requires the auditor to review the outcome of previous accounting estimates, or, where applicable, their subsequent re-estimation to assist in identifying and assessing the risks of material misstatement in the current period. The auditor shall take into account the characteristics of the accounting estimates in determining the nature and extent of that review. The review is not intended to call into question judgments about previous period accounting estimates that were appropriate based on the information available at the time they were made.

AU-C Section 540 includes a similar requirement.

**Amendment to AS 2805, *Management Representations***

The proposed amendment to AS 2805.06 would require the auditor to obtain specific representations related to accounting estimates in connection with an audit of financial statements presented in conformity with generally accepted accounting principles. Consistent with the fair value standard, the auditor would obtain representations about the appropriateness of the methods, the consistency in application, the accuracy and completeness of data, and the reasonableness of significant assumptions used by the company in developing accounting estimates. Commenters did not address the requirement and the Board is adopting this amendment as proposed.

**Amendment to Rescind AI 16, *Auditing Accounting Estimates: Auditing Interpretations of AS 2501***

As discussed in the proposal, the Board is rescinding AI 16. That interpretation addresses performance and reporting guidance related to fair value disclosures, primarily voluntary disclosures including fair value balance sheets. Fair value disclosure requirements in the accounting standards have changed since the issuance of this interpretation, and fair value balance sheets covered by the interpretation are rarely included in issuer financial statements. Accordingly, this interpretation is unnecessary. Commenters did not object to rescinding this interpretation.